THE

MEDICAL AND SURGICAL REPORTER.

No. 1413.] PHILADELPHIA, MARCH 29, 1884. [Vol. L.—No. 13.

# ORIGINAL DEPARTMENT.

## COMMUNICATIONS.

### THE UNKNOWN FACTOR IN THE EQUATION OF THE NERVOUS SYSTEM.

BY J. M'F. GASTON, M. D.,
Of Atlanta, Georgia.

(*Continued from page* 361.)

It is not supposed that the use of medicines by the mouth can be entirely substituted by other modes of introducing them into the system. In all cases that may be appropriate for propagating the best effect of medicinal agents through the stomach, of course this channel should be adopted. Yet there are numerous instances in which embarrassment is presented in the repugnance to swallowing medicines, or in the inability to retain them; while there are many cases in which medication through other channels is attended with more satisfactory results in the treatment of the disease. The hypodermic method is better adapted generally to acute diseases, and yet should not be confined exclusively to this class of derangements, as there are chronic cases that require this kind of treatment.

The advantages of medicated injections upon the organism are manifested, not only when made into the areolar and cellular tissues, but also when passed into the substance of glands and tumors, into mucous and serous cavities, and into the excavations of various abscesses. This depends upon a peripheral development of nerve energy, co-existent with the general distribution of the capillaries and the minute nerve fibrils to the cutaneous surface, and to the serous and mucous membrane, as likewise to the reticulated structure and cellular tissue, that become exposed in abscesses. The impressions upon these several parts are, to a great extent, independent of the brain and spinal marrow, and *yet are extended by a connecting link of the ganglionic nerves in such a way as to reflect a vital influence of the remedial agent back upon the respective structures.* There is abundant evidence of the close relations of the great nerve-centres with the cutaneous and other superficial structures, yet it is not known what is the exact line of communication from one to the other, nor through what channel the centripetal and centrifugal forces operate in propagating the impressions made upon the different classes of tissues. A precise understanding of the distinct relation of the nerve fibres to the capillaries, and their joint influence upon the nerve centres, and through them upon the various internal organs, is a desideratum for experimental physiology.

The subcutaneous areolar tissue is so intimately connected with the internal parts by the correlation of the capillaries and the nerve fibrils, as to afford a most important medium for the application of remedies. Their effects are manifested more speedily either by absorption or by direct action upon the nerves than is practicable through the stomach.

In the true language of Dr. H. C. Wood, "the subcutaneous tissue affords the most rapid route to the central organs;" and this line of approach to the citadel of life, requires more thorough research on the part of scientific men.

An explanation of "the action of medicine on the cure of diseases," must be sought in a primary impression through the capillaries upon the minute ramifications of the nerves, which is ex-

tended to the nerve-centres, and thence propagated by the joint influence of the ganglionic and spinal nerves to the whole vital organism. The immediate transmission of the venomous emanation from the bites of poisonous snakes and insects, cannot depend upon the comparatively slow process of passing through the ordinary route of the circulation, but results from the entrance of the poison through the network of capillaries and nerve fibrils, being transmitted from the former to the latter, and thence by the nerves to the nerve-centres, with the convergent derangements and disturbances of the animal economy. It may be that the antidotal influence of hartshorn, or other corrective, could be efficaciously applied through the same channel, and if an immediate resort to the subcutaneous syringe could neutralize the poison or its effect, it should be hailed as a grand advance in therapeutics. There is a peculiar result from the curari, that unlike the venom of snakes, does not occasion local inflammation when inserted into a wound, but appears to act exclusively on the nervous system. It manifests its effects in arresting the action of the lungs sooner than the pulsations of the heart, and hence creates a strong presumption against the operation of the poison by means of the general circulation, notwithstanding that it has access to the nerves through the medium of the blood in the capillaries. The influence of this powerful agent is so limited to the nervous system, that when the lungs cease to act, while the heart continues to beat, respiration may be maintained artificially until the otherwise fatal depression passes and restoration ensues. In the course of a few hours, the poison is dissipated and eliminated, and leaves the system in a condition to recuperate its natural powers by a return of nervous energy.

It may be deduced from the facts already known, that independent of any direct operation upon the nerves, the influence of traumatic poison is developed through the circulation of the blood upon the ganglionic system of nerves, and as a consequence, the implication of the pneumogastric nerve, which controls to a large extent the action of the lungs. Yet, this does not preclude the recognition of a primary and immediate action through the capillaries upon the correlated fibrils of the nerves, and the transmission thence of this influence; and the route followed in the introduction, progress, and elimination of such agents, requires to be more closely defined, indicating the source of the disorder to the animal economy. Outside of the residual influence exerted by external applications, we may note the operation of accidental impressions from various sources upon the human system.

The transmission of cutaneous modifications to the internal organs, becomes in many instances a source of disorder to the animal economy. The contact of cold and moisture with limited portions of the surface of the body in an irregular or partial manner, interrupts the nerve power in such parts, and thereby interferes with the proper equilibrium of the circulation in a way to impair the dependent organism. Currents of air acting suddenly and locally on the surface of the chest, frequently induce pneumonia or pleurisy.

The liver becomes deranged by undue exposure to the sun and night air, from the influence of the alternations of temperature upon the skin.

The intestines and bladder are often affected from dampness of the feet and vicissitudes of the weather, operating upon the surface.

Rheumatism and neuralgia are the ordinary results of sudden atmospheric changes; and though the person may be exposed generally to the deleterious impression, certain parts are attacked, owing to a predisposition to such derangements in their tissues.

The exact line of operation in any of these impressions, by which the effect is produced upon the vital functions, cannot be clearly traced. Yet there are sufficient data upon which to base a very plausible solution of all the varied manifestations of this relation of the outer and inner parts in health and disease.

The medical profession are familiar with many facts that go to sustain the pervading modification of the organism through this connecting link of nerves, and the special nature of the cause is propagated in a peculiar way for the development of specific diseases in the varied structures of the body.

The absorption of any virus into the system, by contact with a delicate mucous surface, or by its introduction beneath the cuticle, develops subsequently the specific constitutional effects of the special contamination. As an instance, the syphilitic virus comes in contact with the delicate tissues of either sex, and its immediate and direct influence upon the part is not perceptible for the time being, but in the course of a definite period of incubation, it causes an ulcer upon the surface. Again, from this point, in the course of a variable period, there is transmitted throughout the organization a peculiar and distinct disorder, which indicates that this poison has been operating gradually, but surely, through some definite channel, to bring about this effect.

Here is a point for study, and presents some of the obscure points of my theory more distinctly than is shown by any other phase of the reciprocal relations between the surface and the interior structure of the body, with their dependencies.

We observe a peculiar process in the termination of the incubatory state by the primary ulcer of syphilis, and we further note its advances in the ultimate development of the secondary phenomena of this disease. This exhibits a class of results quite different from those previously adverted to, and experience affords other convincing proofs of the extraordinary vital link by which distant parts are associated.

In the simple operation of vaccination and its consequences, we have an illustration of the same principle. As in the case of the virus of syphilis, the vaccine lymph is brought into contact with the delicate tissue beneath the cuticle, and then appears to remain dormant for a definite period, when it is found to have been transmitted through a distinct channel to the general system. At the expiration of eight days, more or less, it develops a characteristic pustule at the point of introduction, accompanied by a corresponding constitutional excitement. It is not considered that the retention of the vaccine lymph for this period, causes a mere local influence upon the tissues. Those who have any claims to pathological knowledge, view this as simply a *punctum salicus*, from which a special disorder is propagated to the general system.

The pustular eruption at the point of introduction is only an evidence of its complete development, or a local manifestation of a constitu tional disease, which by its pervading character exempts the subject from the access of variola in the future.

In this connection, attention may be drawn to the very extraordinary history of the varying conditions that characterize the latent period of the germ or virus of hydrophobia. An individual being bitten by a rabid dog, and no steps being taken to intercept the absorption of the poison, it should naturally be inferred that the consequent disturbance should present itself within some definite period. Yet, by some unaccountable modification of the dynamic element that operates in the propagation of poisons to the general system, it occurs that no calculation can be made as to the lapse of time in which the disorder may appear.

The condition consequent to the contamination is not localized, as it is notorious that any delay in excising the part bitten or in neutralizing the effect on the tissues, is unavailing for the arrest of the evil.

The malady must, therefore, from the outset be in operation, and is gradually propagating its influence, according to its quality, through the organization.

There is positive evidence that an impression made through the areolar tissue, or even upon the delicate mucous membrane, finds ready access to the subcutaneous net-work of capillaries and nerve fibrils, leaving its effect on them.

This influence is transmitted in a definite and uniform manner, through a nervous channel to the central parts of the organization, so as to operate through the ganglionic system in developing the consequences that qualify the agent employed.

It may yet be ascertained that all these striking developments of structural disorder arise from some molecular change, that is to be corrected upon a large generalization of therapeutics.

It is incumbent upon the pathologist to afford a satisfactory exhibition of the mode in which the efficient cause of derangement brings about the consequent alterations in the functions of the various organs, so that we may be enabled to proceed understandingly in arresting the disorder.

It devolves also upon the physiologist to point out the modifications that may be impressed upon the nervous system, consistently with the normal tone of the healthy organism, and through what agencies and by what routes effects are produced. The propagation of nerve power from the spinal column, as exhibited in the voluntary movements of different parts, and the reception of impressions from without or within the body, depends upon the anterior and posterior branches of the nerves, which are classified as motory and sensory, according to their respective capacities. This important distinction in regard to the attributes of these two sets of nervous trunks is due to the investigations of Magendie, though it has been claimed for Sir Charles Bell up to a very recent period.

The relations of the nerve fibres in the different segments of the spinal cord, and their association and decussation in the medulla oblongata, have been demonstrated by Charcot in a satisfactory manner. They supply the requisites for the nice and varied conditions of action and re-action from the many impressions upon the sensory nerves. The most recent researches have assigned very complicated functions to the medulla oblongata ; and these additions to our knowledge enable us to interpret more accurately the variations in the different regions of the cord, and in

the different columns, as modified by transmissions from the afferent and efferent nerves.

Those manifestations and exhibitions that are associated with the spinal cord in its reflex capacity, are not in any way identified with the phenomena which are developed by the reciprocal relations of the capillary plexus with the great sympathetic nerve. The sensations, with the voluntary and reflex movements, are not associated in the demonstration of these mutual dependents. It is to the organic system of nerves, and the nerve fibres intermingled with the capillaries, that we must look for an explanation of the effect of remedies, poisons, and other varied agencies, which operate through peripheral impressions upon the body.

The general division of the nerves into the cerebro-spinal and ganglionic systems, presents a satisfactory solution of most points connected with the performance of the animal and organic functions. A separate, if not an independent action on the part of the great sympathetic, admits of nutrition, secretion, and excretion, with the special acts of respiration and defecation, while the cerebro-spinal influence is interrupted by paralysis or other agencies of a temporary character. Yet the key to the vital casket needs to be given to the physician. An intelligent explanation of the sympathetic relations of the nerve fibrils and the capillaries, with the normal and systematic performance of the functions of the various parts of the human organization, on the part of the physiologist, will conduce greatly to a better understanding of the derangement of the vital operations by the pathologist. We need precise information in regard to the workings of these two divisions of minute structures, and I have sought in vain for any satisfactory solution of the recognized influence of the nerve-fibrils and the capillaries upon the vital functions.

(*To be Continued.*)

---

## AN UNOBJECTIONABLE FORM FOR THE ADMINISTRATION OF MEDICINES.

BY M. S. FRENCH, M. D.,

Of Philadelphia.

Of all the various forms in which medicine is prescribed, there is none so well suited for the administration of drugs possessing a poisonous influence, unpleasant odor, or taste, as the manufactured pill form.

The advantages derived from prescribing remedies in this form are so apparent, that it was a matter of surprise to learn that their use was not more general. It is on this account that I present this short article, hoping that it may lead to more extensive use and appreciation of this valuable method of prescribing.

Manufactured pills will become more popular with physicians, as their value and advantages are recognized. They are so beautiful in appearance, so accurately compounded, so quickly dispensed, reducing the danger of making a mistake, on the part of the physician or druggist, to an almost impossibility.

They also enable the physician to carry with him, in a small and compact form, ready for administration, all the remedies that might be needed in emergencies, and night practice.

To the physician engaged in country practice, where his patients are at a distance from a drug-store, they become of especial value.

In that class of pharmaceutical preparations which exhibits medicines in an elegant and palatable form, without the sacrifice of quality, uniformity or accuracy, American pharmacists have been doing excellent work, the result being that most of the objectionable features which formerly pertained to manufactured pills have been removed, being now produced in such a perfect and attractive form, that the most fastidious patient can find no objection to urge against their use.

There is little doubt but that much of the popularity of Hahnemann's system of cure, based upon the maxim *similia similibus curantur*, is due, not to the truth of the law, but to the preference for the tiny, tasteless and attractive pellets; and the sooner the medical profession recognizes this, the quicker will the public see that, aside from pleasant doses, there is nothing but fallacy and error in homœopathy.

There are some drugs used in practice that cannot be administered in pill form, and there are instances where solutions are preferable. Such is the case in treating the various types of fevers, and where tonics are employed; but in the greater number of cases, the object desired is a continued influence, rather than an immediate impression upon the system, and for the accomplishment of this end pills are best suited.

In an article of this nature, it is not necessary or possible to dwell upon all the conditions to which the administration of remedies in the manufactured pill form are applicable, but to detail a few of the more frequent diseases, and specify instances where they have been used with success, during the past six or seven years.

The physician engaged in city practice sees no departures from health so frequently, as those as-

sociated with the digestion and assimilation of food. A majority of the patients presenting themselves for treatment, suffer from either a simple dyspepsia or some one of its many manifestations. The life led by people massed together in large cities is such an artificial one, the inhabitants being so subjected to the enervating influences surrounding them, that the indiscretions of diet, mode of living, anxieties, and the continual struggle for existence, become active factors in producing the large number of dyspeptic cases.

There are certain conditions that cannot be relieved by dietetic and hygienic treatment alone, but require the use of drugs, which should be given in the most pleasant and unobjectionable form; as there is no class of patients so prone to find fault with their medicines, being best suited by doses that are attractive, tasteless and not bulky.

It will not be a digression to dwell upon the treatment of this common affection, as it will enable me to mention more particularly the remedies suited for administration in the form under consideration.

The power of digestion being depressed, special aids to that function will be found in pepsin or alkalies; the anæmic condition may require iron, quinine or strychnia. Where remedies are needed, the action of which must be sedative, good results may be obtained from bismuth, opium, belladonna, arsenic or silver.

A very useful pill is that of aloin (gr. $\frac{1}{5}$) and strychnia (gr. $\frac{1}{60}$) given at bedtime; this will produce a mild, thorough, laxative effect, unloading the stomach and intestines, removing the fetid breath, the furred coating upon the tongue, and the cerebral congestion.

An error liable to be committed is the administration of cartharties of too active a nature; they are rarely called for, do little good, and might possibly do evil. Mild laxatives only are required, and care should be exercised as to their selection and frequency.

Formerly it was my custom to use pepsin and pancreatine more than at present, as recent investigation has led me to believe that as much benefit can be derived from the former agent alone, as when given in combination with the latter. Pancreatine has been shown to be itself digested by pepsin, so that its chance of getting through the stomach to the duodenum, where it normally exerts its function, is very slight, while when combined with pepsin, it must be digested as soon as the mixture becames warm enough, in or out of the stomach, to carry on the process. Yet we see many preparations of which the chief virtue is supposed to be that they contain *all* the digestive principles. These can be active only so far as they contain pepsin, and have no advantage over the simple drug.

It has also been shown that certain substances combined with pepsin in solution, render it inert. Alcohol is one, and even in moderation diminishes its action, while, in any quantity, the activity of pepsin is totally prevented. This is a point often lost sight of, and serves as a hint concerning the use of liquors at meals, by dyspeptics.

Pepsin and bismuth are frequently combined when treating dyspepsia, and should always be administered in pill form, owing to the difficulty of keeping both agents together in a permanent solution, one requiring a somewhat acid menstruum, the other a neutral or an alkaline one. Nothing is more common than to see elixirs of pepsin, bismuth and strychnia, which darken, harden, and shrink the albumen placed in them. Liquid preparations are theoretically, if not practically, inconsistent, and will generally be found to be unsatisfactory.

In treating that form of dyspepsia met with in malarious districts and in persons who have passed the autumn months in the country, much good can be obtained from quinine, or a combination of quinine, iron and arsenious acid, given after meals and for a length of time. When using quinine the pill form is the best that can be resorted to, the soluble-coated pill possessing many advantages over the solutions, capsules or wafers. In an article upon quinine, published about four years ago, I called attention to the ready solubility of the bi-sulphate and urged it use, being the most soluble of the quinine salts used in medicine. On this account it is more active and better calculated for administration in pill form than the sulphate; but it should be borne in mind that as the bi-sulphate of quinine contains a smaller proportion of the pure alkaloid, the amount being only about 60 per cent., the dose should be one-fourth greater than that of the sulphate, in order to represent the same amount of alkaloid.

Iron is a most valuable remedy in the treatment of dyspepsia, but furnishes best results when given toward the termination of a course of treatment.

Active business men, brain-workers, and those who are subjected to much mental anxiety or overwork, frequently suffer from what is termed "nervous indigestion." To meet this condition we possess a valuable remedy in phosphorus, which should be given in small doses, immediately after meals.

The best form of administering phosphorus is that afforded by the manufactured pill, which possesses many advantages over those made to order in the prescription room. A pill of this kind is exceedingly difficult to make, requiring especial care and skill. The phosphorus should be incorporated with the various ingredients, while in solution, so as to effect a thorough and uniform diffusion; they should also always be coated, in order to prevent oxidation. I have made some interesting experiments with phosphorus pills manufactured by Schieffelin, of New York, proving that their coating entirely protected the enclosed mass. A pill that had been manufactured a year ago was cut open, and the mass found to be as soft as though made but a few days. Another pill, of the same manufacturer, made eight years ago, was found to be but little harder. Upon placing two of the latter pills in a small quantity of water, the coating was quickly dissolved, the mass broken up, and when placed in in a dark room the vial was plainly perceived, owing to the unaltered luminous property of the phosphorus. This simple experiment goes to show that if properly made and coated, a manufactured pill does not become affected by age, nor do the various ingredients become so altered that they lose their medicinal properties. Experience has shown that such pills may be kept for years, even in a very warm climate, and still produce prompt and active effects when administered.

In treating the secondary forms of syphilis, the plan recommended by Dr. Keys, "of administering mercurials in granules," possesses many advantages over the older method of prescribing the same substance in solution. Intestinal irritation seems to be later and less painful in its manifestations, it is an easier matter to regulate the quantity given when pursuing the "tonic treatment," and the granular form is the most convenient and portable for the patient. Certain cases will be encountered where the symptoms are so pressing that there is not time to get the patient quietly under the influence of the drug, when administered in granules, but fortunately such are not frequent, and can be met by resorting to the older methods until the urgent symptoms abate. The obstinate lesions occurring in the mouth are most successfully treated with granules, the patient being told to allow the little pill to slowly dissolve upon the tongue, thus obtaining the effect of a solution of corrosive sublimate upon the patches, while at the same time the general treatment is pursued.

In a case where the mucous patches in the mouth were very numerous and troublesome, no impression could be made upon them until the plan mentioned was tried, when they disappeared in a short time.

While pursuing the hyoscyamine treatment upon a patient afflicted with mental disease, the manufactured pills were of great advantage, as there was no doubt as to accuracy of dose, and they were easy to administer.

In a recent conversation with one of the leading alienists of this city, I was informed that he was using pills of this form upon several cases, considering them preferable to the hypodermic method.

When prescribing a medicine so powerful in its influence that doses of from $\frac{1}{200}$ to $\frac{1}{25}$ of a grain are desired, it is almost impossible to obtain the exact amount in each pill, unless a large number are prepared at one time and great care exercised in the manipulation of the mass. With drugs like arsenious acid, aconitia, aloin, atropia, codeia, digitalin, hyoscyamine, morphia, phosphorus, strychnia, and the more powerful mercurials, accuracy of dose and the decreased possibility of a careless mistake, are points in favor of the manufactured pill; while with such remedies as asafœtida, quinia, and others possessing a very unpleasant taste, the coating removes the objection to their use, which patients so frequently make.

Little children who struggled and had to be forced to take quinine when prescribed in solution, powders or uncoated pills, will take the drug without objecting, when given in a coated pill.

In this article it has been my intention to point out a few of the advantages possessed by manufactured pills, over those prepared in the old and ordinary manner, and to speak of a few cases in my own practice, where the results from their use have been satisfactory. During the past seven years, the soluble-coated pills made by Schieffelin & Co., of New York, have been the ones prescribed, and I do not hesitate to recommend them to the profession.

The "coating" of pills is a subject of much importance and of especial interest to physicians.

In a future article I shall bring to their notice some facts, to add to those published a number of years ago.

1423 *Walnut Street.*

—M. Renzi has contributed a paper on pulmonary syphilis to the *France Médicale*, in which stress is laid on the absence of bacilli in the sputa of such cases.

## A FURTHER NOTE ON THE SPECIFIC TREATMENT OF ENTERIC FEVER.

BY JAMES C. WILSON, M. D.,

Physician to the Jefferson Medical College Hospital, and to the Philadelphia Hospital.

Read before the College of Physicians, of Philadelphia.

A year ago I read before the College a brief paper "On the Management of Enteric Fever According to a Plan Based upon the So-called Specific Treatment." That communication, which will be found in the sixth volume of the third series of the *Transactions*, beginning on page 221, was the outcome of the clinical study of a very limited series of cases in which the plan referred to had been fully carried out. The object of the present communication is to lay before you the results of the plan as employed during another year in the management of a second series of cases.

Before presenting to your attention the facts relating to this second series of cases, permit me to state that the plan of treatment consists in a close adherence to the so-called rational or expectant method of treatment in all its details, plus the systematic use of purgative doses of calomel in the early days of the attack, and of iodine and carbolic acid throughout its whole course. These drugs are administered chiefly with the intention of realizing their effects in diminishing the activity of the supposed specific cause of the disease and the treatment is therefore properly designated a specific treatment, in contradistinction to the rational or expectant treatment on the one hand and to all forms of symptomatic treatment on the other.

The first series of cases numbered sixteen, of which all recovered.

The second series, treated during the year 1883, by a curious coincidence, also numbered sixteen, of which two died.

Of these, seven were severe, the temperature reaching or exceeding 104° F. (40° C.)

Of these seven severe cases, the two which terminated fatally were colored men, admitted to the wards of the Philadelphia Hospital late in the attack and in a state of profound stupor. One, aged twenty-seven years, died on the seventh day after admission; the other, aged forty-seven years, on the twenty-first day. The latter passed albuminous urine, and presented after death the lesions of interstitial nephritis in addition to those of enteric fever.

Two non-fatal cases were attended by profuse and repeated intestinal hemorrhage in the third week. One of these, a man aged twenty, had, during convalescence, necrosis of the mastoid process of the right temporal bone. One case of great severity occurred in a man aged sixty-two years, whose convalescence was, however, rapid and without sequels.

No instance of relapse was observed.

The characteristic eruption was present in all the severe cases. It was not discovered in four of the mild cases.

The average duration of the five severe cases in which recovery took place was about thirty-two days; that of the nine mild or medium cases was about twenty-four days.

Of the whole number, six were treated in hospital and ten in private practice.

It is worthy of note that the convalescence in these cases was rapid, as a rule, without complication, and that no instance of relapse occurred. An analysis of the combined series shows as a result of this treatment in my hands thirty-two cases, sixteen treated in hospital, sixteen in private practice, with two deaths (cases admitted to hospital in profound stupor). The death-rate is, therefore 6.25 per cent. I refrain from citing, for comparison, the familiar statistics of the death-rate of enteric fever. We have come to regard it as ranging from 15 to 20 per cent., with a more favorable showing in private than in hospital practice. But Welch, from the statistics of the medical service of the British army, has recently shown it to exceed 33.3 per cent., and Dr. Francis Delafield, in an important statistical paper on this fever as it occurs in New York (see *Medical News*, November 24, 1883), has shown that the death-rate in hospital cases, though varying in different years, ranges between 20 per cent. as the lowest, and 30 per cent. as the highest limit.

# HOSPITAL REPORTS.

## A CLINICAL LECTURE DELIVERED IN THE HOTEL DIEU, PARIS, FRANCE.

BY DR. F. RAYMOND,

Fellow of the Society of Medicine, Physician to the Hôspice des Incurables.*

### 1. Acute Meningitis in the Course of Typhoid Fever. 2. Tubercular Meningitis in an Adult.

GENTLEMEN: The last few days we have observed together two patients who have succumbed to meningeal affections. One of them has had acute meningitis with rapid march in the course of typhoid fever. The other has died in consequence of tuberculous meningitis; this patient was a woman, aged 45, and the diagnosis of her

*Translated for the REPORTER by E. P. Hurd, M. D.

affection presented many difficulties, as you well remember. It has occurred to me that it would be interesting to review in detail these two cases.

1. The 16th of August, there entered our hospital, Ward St. Christopher, No. 6, a man 26 years old, painter by occupation. At the morning visit August 17th, the patient appeared prostrated, depressed, and in a partial stupor. The pale complexion, the flushed cheeks, the injected conjunctivæ, the burning hot skin, indicated at once that he was suffering from an intense fever, and in fact the thermometer gave an axillary temperature of 103° F. The pulse was weak and rapid (120 a minute), and manifestly dicrotous. When questioned, the patient responded willingly and with precision. He complained particularly of a violent headache, seated principally in the frontal region, and of tinnitus aurium. He also complained of pain in the back of his neck, in the region of the nucha; this pain was dull, continuous, and was increased by sitting up, which also caused vertigo and marked pallor of the countenance. The appetite was gone, there was intense thirst; the tongue, covered with a thick white coat, was dry at the tip and borders, which were of a lively red color, and appeared devoid of epithelium. The patient was much constipated, the bowels did not move without purgatives or injections.

The abdomen, somewhat tympanitic, was painful to pressure over the right iliac fossa. Pressure elicited no gurgling sounds. There were several lenticular rose-spots on the belly and back.

Percussion showed the spleen to be much augmented in volume. The nasal fossæ were dry, the voice was slightly hoarse; there was, however, no catarrhal angina.

Percussion of the thorax revealed nothing in particular; there were here and there a few snoring and sibilant rales, especially at the bases. Heart beats weak and precipitate. Urine, high-colored, acid, and albuminous. There seemed to be no marked predominance of morbid manifestations on the part of any of the viscera or the nervous system.

On interrogating the patient, we learned that previously to this sickness he had enjoyed good health. He came to Paris two years ago, pursuing his occupation till within about ten days, when, without any appreciable cause, he felt his strength leave him. He could not walk without vertigo; there was ringing in the ears; he slept poorly during the night; had startings in his sleep and frightful nightmares. At length he lost his appetite, and not being able longer to sit up, he decided to enter the hospital. Never had nose bleed; bowels always constipated. The diagnosis in this case was easy from the very first. The disease dated back in fact eight or ten days. We could therefore at once exclude all the eruptive fevers, which, as you know, during their prodromic period often manifest a clinical tableau which resembles the initial period of typhoid fever. Besides, on taking into consideration the cephalalgia, the lenticular spots, the meteorism, the augmentation of the volume of the spleen, the stupor, the insomnia, the state of general prostration, the march of the disease, there seemed to be warrant, notwithstanding the absence of diarrhœa and constipation (you have often seen in my service patients affected with typhoid fever, and who were constipated—this has been the case in several epidemics), there seemed, I say, to be warrant for the diagnosis which we made, of typhoid fever; all the symptoms of the fever were in fact perfectly regular, if I may thus express myself. There was no predominance of symptoms on the part of the lungs, nervous system, or other organs, suggesting broncho-pneumonia, meningitis, etc. The prognosis, with such reserves as belong to every case of typhoid fever which has reached its eighth or ninth day, was quite favorable.

The 16th of August, the day of his entrance into the hospital, I put him on the following treatment: wine and water for drink; meat broth for nourishment; 30 grains of salicylate of magnesia every two hours, till a drachm and a half was taken; this to be the daily allowance of the medicine. You know, gentlemen, that the parasitic theory of infectious diseases is making a great many converts every day, and by reason of the new inclusion of typhoid fever in the category of germ diseases, there is a great therapeutic movement in favor of the antiseptic medication. You know the results furnished by the carbolic treatment and the treatment by salicylate of soda. One of the objections, and one well founded in my estimation, against these various medicinal agents —given with antiseptic intent—is the impossibility of making them reach the last portions of the intestines, where are habitually seated the lesions of typhoid fever.

Professor Vulpian has asked if it might not be possible to have recourse to other medicaments equally antiseptic, and capable, not being immediately absorbed, of having a local effect on the lower portions of the alimentary canal. It is in accordance with this view that I employ salicylate of magnesia, and I have already tried it, as you remember, on other typhoid patients. I begin by giving 30 grains a day, then a drachm, then a drachm and a half; I hope thus to obtain a purgative action, as well as a lowering of the temperature.

In the case of our patient, I have been disappointed in my expectations. The 17th of August we gave 90 grains. The temperature, which in the morning was 102½° F., rose to 104° in the evening. There was no movement of the bowels following the large doses of the salicylate.

August 18th, the general condition was the same, that is to say, generally assuring. I increased the salicylate of magnesia to 2 drachms a day, in four doses of one-half drachm each. The temperature in the morning was 103°, in the evening 104; the patient remained constipated.

August 18th, a little more stupor. Tongue dry and black. Salicylate of magnesia increased to 2½ drachms. Morning temperature 102½°, evening temperature 102°, a decline of one-half degree. Pulse small, rapid, and irregular.

August 20th, general condition is the same. Salicylate increased to 3½ drachms. Notwithstanding these large doses, constipation persists. An enema was given in the evening, which resulted in five diarrhœic stools. Morning temperature 102° F., evening temperature 101½°; a fall of one-half degree.

August 21st, great increase of prostration; patient can hardly answer questions, his responses are vague and uncertain. There is some restlessness and agitation. The tongue is dry, the gums

fuliginous; meteorism much more pronounced; pulse very irregular. Discontinued the salicylate; N. B., to give wine, broth, quinine, and employ cold sponging. Morning temperature 102°, evening temperature 101.5°. About 4 p. m. the patient was suddenly taken with a violent delirium (delirium of action and of speech). It was necessary to put on a strait-jacket, and the entire night of the 21st, and the next day, he was in a state of extreme agitation.

The morning of the 22d, his condition was as follows: He lay on his left side, his head somewhat thrown backwards, the muscles of the neck slightly contracted, the eyes protruded and convulsed, turning upwards and to the right, the pupils contracted. The patient kept uttering plaintive cries. The mouth, wide open, gave issue to a frothy, sanguinolent mucus; the muscles of the face were the seat of fibrillary twitchings; the arms and the legs were stiff, and agitated by short, rapid spasms, ceasing for a few moments, and returning more violently than ever. The temperature had again risen to 104° F.: pulse still irregular.

In the presence of these complications, so marked in their expression, divers hypotheses suggested themselves. In order intelligently to appreciate these phenomena, their diagnostic and prognostic signification, I made successively the following suppositions: (1) Is it possible that our patient, whose occupation has been that of a painter, is now suffering from saturnine encephalopathy in the course of his typhoid fever? There was nothing to authorize this view of the case; there was no red line along the gums, he had never had any paralysis of the extensors or other manifestation of lead poisoning. (2) Have we here a case of uræmic eclampsia, supervening in the course of nephritis, a frequent complication of typhoid fever? There was no increase in the urine of albumen, which was even less in quantity than at the commencement of the fever. The temperature, far from falling, was higher; there was, moreover, stiffness of the neck, contracture of the ocular muscles, the delirium was very intense, and the patient was only at the tenth or twelfth day of the fever. For all these reasons, I decided that uræmia was not the cause. (3) Have we to do with simple nervous phenomena, a consequence of the aggravation of the fever? One certainly often sees, in the course of typhoid fever, which has been very regular during the past few days, a violent delirium set in with carphologia, general muscular tremblings, etc.; and at the autopsy, if the patient dies, which is not always the case, nothing is noted on the part of the brain but a well-pronounced hyperæmia of the meninges and gray substance. In our patient all the symptoms were too well marked not to indicate clearly, especially if due regard were paid to the contractures, the convulsive shocks, etc., a material lesion of the nervous centres, an inflammatory lesion developed in the course of typhoid fever; and on taking into consideration the symptomatic aggregate, in particular the contractures, the irregularity of the pulse, it seemed almost certain that the trouble was localized in the meninges. There was warrant for going even farther, and for positively affirming that the meningitis was seated at the base of the brain. This was my conclusion, and the autopsy proved it to be correct.

You should remember that such cases, relatively speaking, are very rare. As I told you, the first nervous disorders of dothienteritis have sometimes a great resemblance to those of meningitis, to wit, the headache, delirium, ocular troubles, the vomiting, the hyperæsthesia, etc. Hugues, who has carefully studied these facts, thinks that generally, we should exclude the hypothesis of meningitis or meningo-encephalitis as complications of typhoid fever. Nevertheless, Lerèboullet, in a very able monograph, has shown that these meningeal accidents may be present in the stationary period (*period d'etat*), or even from the very commencement of the fever.

"In the first class of cases," he says, "the stupor becomes extreme on the eighth or tenth day; the nocturnal delirium intense. At the same time vomiting sets in, there are oculo-pupillary troubles, convulsive movements, contractures, with fixation of the head backwards. Nevertheless, these symptoms, even when they all occur together, do not make the diagnosis sure. The temperature in general undergoes a relative depression, and presents oscillations of great irregularity; the pulse becomes, and remains during several days, irregular, slow, wavy; the respiration is also irregular and sighing. If in these conditions the delirium is intense, the cephalalgia violent, the face spasmodically distorted; if the eyes squint, meningo-encephalitis is almost certain."

You observe, gentlemen, how closely this description resembles the clinical tableau presented by our patient; and in this connection I must refer you to the classical treatise of Murchison. You will there see how difficult is the diagnosis in the presence of such symptoms. Having settled the diagnosis of meningeal complications, it was easy to foresee the fatal result which occurred in the course of a couple of hours.

The autopsy was made the 23d of August. These, in brief, are the results:

*Abdominal Cavity.*—The intestines were distended with gas (meteorism); their external surface (principally in the last portion of the ilium) injected and aborescent in spots. The small intestines were washed and incised along their convex border; a few feet above the cæcum a number of Peyer's patches were found in various stages of inflammation. Some of them, but little prominent, were softened; others were tumefied and firmer than the preceding; there were still others, very near the cæcum, which were ulcerated, the ulcerations having the form and size of Peyer's patches.

The mesenteric glands, notably enlarged, were soft and of a livid red color on section. The spleen very much hypertrophied (it was three times the ordinary size), was softened, so as to be diffluent, the parenchyma was of a reddish-dark color. The liver, a little congested, presented nothing worthy of note. The kidneys were large and congested; their capsules were removed with difficulty. Section of these organs showed only congestion.

*Thorax.*—The mucous membrane of the bronchi presented a deep red injection; it was lined by a viscid mucus; the lower lobe of the left lung

was congested and œdematous. There was the same condition in the right lung, but less marked. The tissue of the heart, a little discolored, offered nothing particularly worthy of note.

*Cranial Cavity.*—On removing the calvarium, the membranes of the brain were found congested; the superficial veins were very much engorged. The membranes over the convex surface were incised, and reflected back; the same state of hyperæmia was noted in the convolutions. At the base of the brain a purulent exudation was found over the optic commissure, and within the hexagon of Willis. This exudation was greenish-yellow, and adherent. It covered all the blood vessels and all the nerves of the region. On each side, in the substance of the pia mater, it extended along the sylvian arteries to the surface of the island of Reil. Over the tubercular quadrigemina, along the fissure which separates the cerebellum from the posterior lobes of the cerebrum, and between the crura cerebri, appeared the same exudation, and in large amount. Nowhere was there any trace of tubercle granulations. There was no œdema of the cerebrum. The spinal cord presented nothing worthy of note.

(*To be Continued.*)

## MEDICAL SOCIETIES.

### PHILADELPHIA COUNTY MEDICAL SOCIETY.

**The Bacillus Tuberculosis and the Etiology of Tuberculosis. Is Consumption Contagious?**

BY H. F. FORMAD, B. M., M. D.

(*Continued from page* 368.)

From the examination of tubercular tissue from various sources, I may say that I have seldom succeeded in finding tubercle bacilli in newly-formed tubercular tissue made up of small lymphoid cells. In older tubercular tissue, made up of opaque epitheloid cells and giant cells with a nodular arrangement, particularly when this tissue is undergoing necrotic change, bacilli are quite common, except in some forms of tubercles of serous membranes, to be referred to later. Tubercle tissue that has undergone a complete cheesy change, contains the greatest number of bacilli. Cheesy matter of any source is a dead substance, and it is usually inhabited by bacilli, if these get access to it; while other bacteria are scarce on this nidus.

Examination of materials from the autopsy table shows that tubercle expresses itself in various manners. Primarily, tubercle occurs as a mere infiltration of lymphoid cells in the adventitia of blood-vessels, or as small nodular masses of lymphoid infiltration around blood-vessels or ducts of any kind; or tubercle tissue may organize within blood-vessels and various ducts. Sometimes tubercle appears as a diffuse lymphoid infiltration, extending over a larger area, showing a greater or less tendency towards the formation of nodes and cheesy or fibroid change, as in the lungs. Tubercle tissue may form masses of the size of a hen's egg, particularly in the brain and serous membranes. In the lungs, in racemose glands, and in mucous membranes, catarrhal changes always follow the tubercle infiltration. On serous surfaces primary tubercles appear often as flat or nodulated patches of various sizes (in peritoneum), or as fungoid vegetations (in synovial cavities), or even as large plastic masses (in omentum). In the skin and mucous membranes, tubercles produce eruptions, ulcers or nodular indurations; in bones—caries, with abscess formation in surrounding parts (cold abscesses). Fibroid capsules, made up of connective tissue, due to reactive inflammation, enclose often smaller or larger tubercular masses, especially if these have undergone cheesy change.

Primary tubercle manifests itself quite variously in different animals. In Guinea-pigs and rabbits, it appears mainly as small cellular infiltrates; in dogs, it often undergoes a fibroid change; in goats, and especially in cattle, tubercle often forms large nodular, sometimes pedunculated masses, which often calcify;* in birds, it forms, preferably in the liver, large round mulberry masses, which, on section, appear sometimes as horny radiating structures.

Secondary tubercle presents an aspect entirely different from primary tubercle, and it manifests itself in nearly all instances in but one form, namely, as a fine miliary eruption representing those well-known gray semi-transparent nodules of the size of a millet-seed, called miliary tubercles. These seem to lie in the perivascular lymph-spaces, and are probably distributed throughout the body mainly by means of these lymph-channels of the blood-vessel walls. Tubercles do not occur in avascular tissues. There is, however, a second form of embolic or metastatic tuberculosis, which evidently distributes itself by the blood-current proper, and it appears in the form of conical masses or round nodes, which may reach the size of a walnut, and are located usually at the bifurcation of arteries. No mention of this form of tubercle is made in text-books, although upon the post-mortem table this variety of tubercle is a very common occurrence; Especially is it seen in the lung and, more rarely, in the spleen and liver.

Taking into consideration the enormous frequency of local tubercular lesions (counting pulmonary phthisis into this category), the occurrence of secondary or true miliary tuberculosis must be considered as a rare affection. A tuberculosis affecting the lining of even the whole peritoneal cavity, including its lymphatic glands, or that of the pleural sacs, or that involving one or both lungs, must, when occurring thus in but one locality, be considered a local tuberculosis. In such instances, the tubercle spreads by continuity of structure.

It is a fact, established by Virchow, that tuberculosis is at first a local disease, and only becomes generalized secondarily. This generalization does not affect the blood like in infectious diseases, but it takes place simply as an embolic process like in some tumors. Local tuberculosis in external organs and accessible lymph-glands is

*I have met with, on the autopsy table of the Philadelphia Hospital, two cases of tuberculosis in man that were identical in every respect to bovine tuberculosis. Dr. Creighton, of Cambridge, England, describes a number of cases from his own observation, and collected from literature. Bovine Tuberculosis, London, 1881.

often a harmless affection. It is strongly related to primary tumors. Complete early removal of local tubercular lesions is practiced successfully in Europe. Volkmann and others have removed, for instance, lymphatic glands, testes, and joints affected with fungoid synovitis, with the object of preventing secondary tuberculosis, and have thus prevented a general miliary tuberculosis.

Nor should a gloomy prognosis be given in early phthisis. It is astonishing what a large number of healed cavities and cicatrices in the apices of lungs are found on the post-mortem table, indicating the healing of phthisis in persons who long subsequently died from some other causes in later life.

We have seen that tuberculosis manifests itself quite differently as to structure, appearance, distribution, and termination, in the various animals, and even differently in the various organs of one individual. Our studies have shown that these variations in the expression of tuberculosis depend upon the structural peculiarities of the various kinds of animals, and sometimes even upon the difference of the structure in animals of the same species. We have also seen that even in human beings tubercle tissue may manifest itself in various forms. In some individuals it develops rapidly, and spreads over large areas, becoming generalized and undergoing speedy cheesy change; in other individuals it develops slowly, fibroid change predominating; and in others the tuberculous product may calcify. In most individuals tubercular lesions may remain entirely local.

It is well known from clinical experience that the general condition of the organism has very much to do with the healing of a local tuberculosis. A local tuberculous inflammation may heal or become arrested in its progress, if the patient "gets strong," or it becomes more developed and aggravated if his general health "runs down." Observation has further shown that any simple non-specific wound in a weak, ill-nourished individual, may fail to heal, becoming unamenable to treatment, and probably assuming a tubercular character.

In some animals spontaneous tuberculosis is unknown, and while some animals are easily tuberculizable experimentally, in others tuberculosis cannot be produced.

It is in accordance with experience that in a large number of families the predisposition to tuberculosis is hereditary, and that their members die promptly of phthisis at a certain age from the effects of a simple "cold," while in the history of other families this affection is unknown. Every individual is liable to acquire syphilis, smallpox, and other contagious diseases, but it is proven that not every one can have tuberculosis. A special predisposition and a special individual are required. In such an individual, a simple inflammation resulting from any cause whatever, can produce tuberculosis.

Therefore, for the development of tuberculosis, two conditions are necessary:

1. A *definite* soil.
2. An *indefinite* irritant.

The reaction of the soil is always the same under the influence of any irritant, whether that irritant be a bacillus or not; since the result (tuberculosis) following a lesion in such a soil depends upon the character of the soil and not upon the character of the irritant, even though one irritant, say bacilli, may act more readily than other irritants.

In view of the demonstrated fact that simple injuries of any kind can excite a tuberculosis, but only in certain individuals and tissues, it is evident that tuberculization is determined by the kind of soil and not by a specific irritant. *Tubercle should, therefore, be defined as being an inflammatory new formation in a specific individual or tissue.*

What is the place for tubercle in pathology? The anatomical criterion for tubercle is a granulation tissue made up of lymphoid or epithelioid cells, which, on account of deficiencies in the soil, does not undergo any higher organization, nor tend to heal; but tends to form nodes and undergo cheesy change. Under favorable circumstances it may heal through fibroid change. The elements of tubercle tissue may spread by continuity of structure to surrounding parts, and occasionally tend to the production of metastasis, distributing themselves by means of the lymphatic system principally, and rarely by blood-vessels; and may generalize themselves through the whole body, forming miliary nodes or tubercles.

This miliary eruption of tubercle appears to have the same relation to the primary tubercular growth as the secondary metastatic cancer eruption has to the primary cancerous growth. Like in cancer, the elements of tuberculosis may be arrested temporarily by the lymphatic glands governing the affected region.

In tuberculosis, lymphoid cells form the nodes; in cancer, epithelial cells. While secondary cancer nodes are, as a rule, much larger than tubercle nodules on account of the well-known great proliferating power of epithelium, it is also a fact that cancer may appear as a miliary carcinosis, expressed by minute nodules not distinguishable macroscopically from miliary tuberculosis. Cancer is proven to be a local disease. It is not contagious. It is infectious only to the individual who is affected by it; *i. e.*, it is self-infectious. And so is tubercle, in every respect, a local, self-infectious disease.*

That local manifestation of tuberculosis in the lung, which is designated by the traditional name of pulmonary phthisis, forms perhaps nine-tenths of all tubercular lesions, and hence deserves some special consideration.

I arrange myself with those who regard all forms of pulmonary phthisis as tubercular. There are only three or four lesion of chronic wasting disease of the lung which may be excluded from phthisis. These are atelectasis, or collapse from

*Cancer and tubercle are considered analogous lesions, and classed with tumors, by a number of pathologists. This fact would not make it inconsistent to call tubercle an inflammatory product, as the distinction between inflammatory processes and tumor formation is a purely arbitrary one. Virchow pointed out that the majority of tumors are purely inflammatory products (a statement antedated twenty years by Prof. S. D. Gross). A few years ago I made the question of the etiology of tumors a subject of careful personal study, which I yet continue, and I am forced to the conclusion that *all* true tumors are inflammatory products, and that no line of distinction can be drawn where the process which we call inflammation ends and where tumor formation begins.

pressure of effusions; bronchiectasis, in which the enormous dilatation of the bronchi may lead to large cavities and atrophy of lung structure; primary fibroid changes; and abscess of lung. Yet all these lesions may become tuberculous from secondary inflammatory changes which usually follow.

The lesions that are known as catarrhal pneumonia, broncho-pneumonia, pneumonic phthisis, cheesy pneumonia, tubercular phthisis, and fibroid phthisis, are all manifestations of the one disease. Such a classification may be, however, entirely justifiable and useful for practical, clinical and therapeutic purposes. Pathologically considered, phthisis is a local tuberculous inflammation of the lung which may manifest itself in various ways, the appearances depending npon the duration of the disease, the mode of onset, and the constitution and condition of the patient. Lesions representing the different forms of phthisis, and their transition from one form to the other are often seen in the same lung.

Virchow insists that nothing should be considered tubercular unless it shows true tubercle nodules, and hence he does not recognize cheesy pneumonia—or cheesy hepatization, as he calls it—as tubercular, although he does not object to the term phthisis for this lesion.

I was fortunate enough to attend several times the classical demonstrations on this point of Virchow, the father of the view of the dual origin of cheesy matter and phthisis: yet, from our present knowledge of what constitutes tubercle, I cannot help interpreting all the forms of phthisis as of a unitarian origin. It is, after all, as Virchow himself says, only a matter of nomenclature. If we consider the presence of bacilli of Koch as the differentiating point between what is tubercular and what is not, we find that catarrhal and cheesy pneumonias are the most tubercular of all, because they contain, as a rule, more bacilli than any other forms of phthisis.

Although cheesy pneumonia, like all forms of phthisis, remains commonly a local affection, it is seen on the autopsy table to give rise to miliary tuberculosis at least as often as any of the other forms of local tuberculosis.

We are then at present at the same standpoint in regard to the character of tubercle and cheesy matter as Lænnec (1819); and it is indeed perfectly reasonable to suppose that any cheesy matter found in a scrofulous person or animal is tubercular. Of course it is evident that tuberculosis of the lung is usually accompanied by simple inflammatory products, such as organized connective tissue (chronic phthisis), or unorganized croupous and catarrhal exudates (predominating in acute phthisis), which may undergo rapid necrotic and purulent changes, resembling cheesy material. For the latter products the name "coagulation necrosis," as applied by the Heidelberg and Leipsic people, may be employed. Tubercle bacilli are commonly found in this coagulation necrosis. True tubercular cheesy matter should, I think, be considered only that product which is derived from the breaking-down of previously well-organized tubercle tissue.

I need not refer to the details of the manifestation of tubercle in the lung, as these are too well known. But I would like to remark here that those small whitish or gray nodules, usually of somewhat irregular shape, which are seen more or less densely scattered throughout the parenchyma of lungs affected by phthisis, are not miliary tubercles, but minute foci of broncho-pneumonia.*

These minute broncho-pneumonic foci take their origin from tuberculous matter disseminated by means of air-passages, as explained before. *Miliary* tuberculosis of the lung distributes itself by means of the perivascular lymphatics, is very rarely accompanied by catarrhal changes or hepatization, and rarely arises from a primary tuberculous focus of the lung itself; it is, as a rule, a part of general tubercular disease.

**2. The Predisposition.**

Having shown that for the production of tuberculosis we need a special soil, and that the irritant is only of secondary significance, some inquiry into the nature of this soil is necessary.

The question of the predisposition to tuberculosis, as it stands at present, must be considered from three aspects:

1. The clinical aspect.
2. The anatomical aspect.
3. The bacteridian or parasitic aspect.

The consideration of the clinical aspect of the predisposition to tuberculosis is invaluable, as it rests mainly on actual observation, on demonstrated clinical facts, and on conclusions drawn from statistics.

From time immemorial, a clinically well-defined condition of the system, known as the strumous diathesis in its various forms, has been recognized. This condition will be considered later on.

There are a number of ailments which, from the experience of clinicians, are known to have a great, direct or indirect, influence in the development of general tuberculosis and pulmonary phthisis; or are known to create conditions of the system that predispose it to this malady. Such are syphilis, inflammation of serous membranes, bronchitis, croupous pneumonia, diabetes, the exanthemata, especially measles and typhoid fever, deformities of the skeleton, rickets, cerebral and spinal diseases of various kinds, dyspepsia, the puerperal state, uterine diseases, prolonged nursing of children, onanism, change of climate, continuous loss of sleep, distress, etc.

That exhaustion, exposure, the deprivation of food, and other hardships of campaign life, etc., are prominent etiological factors in the production of pulmonary consumption, is learned from the accounts of military surgeons, who observed among young, robust soldiers a remarkable increase in the morbility and the mortality of phthisis, during and immediately after the close of a war. Such observations have been made in the Franco-Prussian and Turko-Russian campaigns. The fact that consumptive soldiers are not allowed to enter upon a campaign (certainly not in Germany and Russia) excludes here the probability of contagion.

Statistics also show the remarkable prevalence of phthisis in persons of certain occupations, such as stone-cutters, miners, cigar-makers, weavers,

*See, in connection with this, the excellent studies of Wm. H. Mercur, from the pathological laboratory of the University of Pennsylvania, published only in abstract form in the *Philadelphia Medical Times*, July, 1883.

telegraph operators, book-keepers, and persons engaged in certain other occupations of a more or less sedentary nature. It is more natural to suppose that the disease or the predisposition to it is created by the character and the conditions of the occupation, than that a contagion should affect preferably shoemakers, miners, or soldiers in the battle-field. Again, in most phthisical patients the beginning of the disease can be plainly attributed to an exposure, to a "cold."

On the other hand, there are pathological conditions or diseases which appear to prevent the development of phthisis and tuberculosis in general. It is an established clinical fact that phthisis is extremely rarely, if ever, associated with mitral heart-disease; and, from my own observations, I believe that phthisis is rarely coincident with tumors. For the latter circumstance, I can offer no explanation; nor is there any statement to this effect in literature. Rindfleisch has suggested that heart disease prevents the development of phthisis by inducing repeated slow congestions of the lungs, these congestions producing an overgrowth of the muscular tissue of the bronchioles and air-vesicles, which thus gains strength for repelling the exudates following inflammation.

If tuberculosis were depending upon a contagium for its development, neither heart nor tumor disease, nor any condition of the organism, could ever prevent its occurrence.

All the clinical facts above referred to prove definitely the necessity for a predisposition for the development of tubercular disease, and militate against the necessity of a contagium.

The anatomical aspect of the question—the morphology of the soil in which tubercle develops—is the most important aspect.

Beneke* tries to explain the disposition to tuberculosis by a disproportion between the size of the heart and blood-vessels and other organs to the bulk of the body.

Schottelius† made recently some interesting observations concerning the mode of termination of the smallest bronchioles, and their relation to the lung acini in different animals. He found that in the carnivora the entrance of the bronchioles into the acini presented very small apertures, so that the air-vesicles were not easily accessible to irritants; while in the herbivora the terminal bronchial terminations were quite wide, thus permitting the free entrance of irritants. He states that in man the bronchial terminations congenitally approach sometimes those of the carnivora, and sometimes those of the herbivora. In the latter type, he believes he has found anatomical explanation for the predisposition in some in some individuals to pulmonary tuberculosis.‡ Weigert, of Leipsic (one of the most enthusiastic germ-theorists), properly remarks upon the observation of Schottelius, that it does not explain the predisposition, as the same animals will react, upon the introduction of the "poison of tuberculosis," into any other part of the body, where the bronchioles do not come into play.

My own studies upon the minute anatomy of the tissues of man and of animals predisposed to tuberculosis, extended over a large amount of material, and gave results which, to my mind, satisfactorily explained this condition. These results I announced at a meeting of the Society in October, 1882.

The anatomical peculiarity observed in either man or animals, be it inherited or acquired, I first showed to be, briefly stated, as follows; all the tissues of the body approach somewhat an embryonal type—they are peculiarly rich in nuclei and young cells, and the lymph-spaces of the connective tissues are narrower, fewer in number, and show a great many more cellular elements in the scrofulous than in the non-scrofulous. So far, subsequent observations of others agree with mine. Objections are raised only as to the direct relation between these structural peculiarities and tuberculosis. Here I must state that I only suggested, and never asserted, the necessity of such a relation. It is quite possible that there are some other and more striking peculiarities in the morphology of scrofulous animals yet undiscovered. This much I can, however, reassert today: that tuberculosis usually ensues when a simple inflammation is set up by any kind of injury, in animals with the structural peculiarity which I have described; but tuberculosis cannot be produced in animals that do not have this structural peculiarity, so far as my experiments show, unless the injury is inflicted upon serous membranes.

For the details of my researches in this direction, I must refer to my first paper upon this subject.*

(*To be continued.*)

---

## COLLEGE OF PHYSICIANS OF PHILADELPHIA.

### Discussion on the Specific Treatment of Typhoid Fever.

(*See page* 391.)

Dr. Arthur V. Meigs said: This so-called "Specific Treatment of Typhoid Fever" appears to me a mistaken plan founded upon an untenable theory. We are asked in the first place to assume that typhoid fever has for its cause a germ whose very existence is not known, and second that calomel, iodine, and carbolic acid, given by the mouth, will meet with and destroy this imaginary germ. Neither of these assumptions can be considered proved. Why do we not give the same drugs in cases of scarlet fever, measles, or smallpox?—for there is as good reason to believe them to originate from germs, and that the same germicides would be effective for their destruction. I should not be so outspoken in my denunciation of this method of treatment if it could be looked upon as harmless; but it seems capable, on the contrary, of much mischief. Whatever may be the effect of such large doses of iodine and carbolic acid, we were almost all taught and have up to this time believed the effect of purges given in the earlier stages of typhoid fever to be most disastrous. Dr. Wilson himself, I doubt not, was taught, as I was, when a resident physician in the Pennsylvania Hospital, that even a teaspoonful of castor oil given to a

---

*Die erste Ueberwinterung in Norderney, Norden, 1882.

†Virchow's Archive, vol. xci, 1883.

‡The method of investigating this condition is not without interest. The vesicular structure of the lung was injected, through the bronchi, was a resinous melted glass, which, on cooling, presented molds of the bronchioles, in connection with their characteristic infundibula and acini.

*Loc. cit.

patient in the early stage of the fever might cause a diarrhœa which would continue throughout the attack. Is there no reason for this belief, and is not calomel capable of producing the same effect? Dr. Wilson says the treatment of typhoid fever is at sea; to me it seems on the contrary that there is no disease in regard to the treatment of which there is such general agreement. How many men in this room treat cases of scarlet fever alike, and how many treat typhoid fever differently? The present treatment of the diseaase is the treatment of common sense; so far as the local lesion is concerned, we treat it as a surgeon treats a wound—we try to give the part rest, and avoid all causes of irritation, and nature thus is given time and opportunity to heal the ulcers. We treat symptoms as they arise, and support the strength of the patient with food and water, and stimulants if necessary, through the four or six weeks during which fever is burning his tissues until he is reduced almost to a skeleton. Now, can purging with calomel, or administering such nauseous drugs as carbolic acid and iodine, conduce to this result? Will the patient be any better able to go through his weeks of fever? Does Dr. Wilson show that the method shortens the duration of the disease one day, or one hour? It appears like asking us to go back to the days of ignorance. which existed before Stokes, and Graves, and the great men of that day, taught us how to treat the disease. Years ago Stokes put in a few words the common-sense view of the question. It must be remembered that at that time distinction between typhus and typhoid fevers was not drawn. He says: "I confess that it was not until several years after I commenced practice that I became fully aware of the erroneousness of what is termed the anatomical theory of disease; and I feel certain, humiliating though the confession may be, that the fear of stimulants in fever with which I was imbued, was the means of my losing many patients whose lives would have been saved, had I trusted less to the doctrine of inflammation, and more to the lessons of experience, given us by men who observed and wrote before the times of Bichat or of Hunter.

"The hospital physician will be frequently asked by students to state the principle on which he administers wine in fever. Typhus fever is a disease which has a tendency to a spontaneous and favorable termination, but one in the course of which the powers of life are attacked by a most malignant influence. By wine, food, and other stimulants, we support nature until the struggle is past, so that, to use the words of an ancient author, which embody a more profound principle than appears at first sight, we 'cure the patient by preventing him from dying;' that is to say, we prolong his existence until the natural and favorable termination of the disease arrives. We do not allow our patients to die of exhaustion, and bearing in mind the depressing influence they have to struggle with, we give stimulants at the proper time and with a bold hand. We give our patients an artificial life till the period arrives when nature and health resume their sway."

If we are asked to try the method because it lessens the death-rate, I think that can hardly yet be considered as proved. The number of cases recorded by Dr. Wilson is yet too small to prove any point. In looking over some old lectures of my father, the late Dr. J. Forsyth Meigs, delivered about the year 1850, I found that he reported a series of sixty-nine cases treated in private practice, and only five deaths. This makes a death-rate of 7.24 per cent., while Dr. Wilson's series of thirty-two cases and two deaths makes the death-rate 6.21 per cent. The number of cases treated by him is less than half. The cases reported by Dr. Meigs were treated when bleeding and purging were still customary, and even his results are but little inferior to those of Dr. Wilson, and both are infinitely better than any published hospital statistics. In the first thirty-nine of Dr. Meigs's series of cases he had four deaths; but in the thirty coming afterwards, only one death occurred. These results bear comparison with Dr. Wilson's, particularly the second series, which came after the first, and when bleeding and purging were becoming less the medical fashion of the day, and the expectant plan was more pursued. A comparison of the first and second series of cases shows how little reliance is to be placed upon deductions drawn from the treatment of such small numbers; for in the first the death-rate was 10.25 per cent., while in the second it was only 3.33 per cent. An examination of such records as I possess enables me to recall twenty seven cases I have treated in private practice. Of these, two died, making a death-rate of 7.40 per cent. One of the deaths was of a boy who was taken sick in a house where there were eight or nine cases of diphtheria and diphtheritic sore throat, almost every one living in the house at the time being more or less affected—the cause being a foul, leaky brick drain which ran through the cellar. The other death was of a man about fifty years of age, in whom the diagnosis was not made until about the end of the second week of the disease. During the first two weeks he was in and out of bed, and made at least two journeys of sixty or seventy miles by rail, and finally died of perforation of the bowel and peritonitis, which were found at a post-mortem examination. If the total number of cases reported by Dr. Meigs and my own be considered together, there were treated in private practice ninety-six cases with seven deaths, making an average death-rate of 7.29 per cent—not a bad showing for the old treatment, when it is considered that typhoid fever has always been looked upon as one of the most fatal of all diseases.

### Selling His Practice.

A physician sold his practice, and agreed not to practice "in that city or its vicinity." He broke this agreement, and his successor brought suit for an injunction, which was granted to him generally. The case was carried to the Supreme Court of Michigan, where the decree was confirmed. The Court defined the term "city or its vicinity" to include the territory surrounding the city for the distance of ten miles from its corporate limits. "The extent of territory, in the matter of doing business, included in the term 'vicinity of the city,' must necessarily depend in a great measure upon the size of the city, its location, and particular surroundings."

# EDITORIAL DEPARTMENT.

## PERISCOPE.

### Koch on Cholera.

The *Lancet*, February 23, 1884, says:

Our Berlin correspondent has favored us with the following Fifth Report of the German Cholera Commission, which he correctly says is of such importance that it does not permit of abridgment. Dr. Koch writes from Calcutta, January 7:

"As a sequel to my report of December 16 last concerning the work of the Cholera Commission in Calcutta, I have the honor of sending to your Excellency the following account. The Commission has been gratified with the lively interest and active support given by the local and hospital authorities in this city. Nearly all fatal cases of cholera in which dissections were made the city hospitals were thus available for our researches. Up to the present time the material has been collected from nine post-mortem examinations, as well as from eight living individuals, suffering from cholera. The cases following each other in almost equal intervals, the time was just sufficient for a thorough examination in all directions. Some cases, ending fatally after a short illness and uncomplicated with other morbid conditions, furnished the best material for examination, as post-mortems could be made soon after death. To these favorable conditions it is due that the Commissioners have been able to make essential progress in the advancement of the work entrusted to them. Microscopical examination in all cases confirmed the existence of the same bacilli in the cholera intestine, which had been found in Egypt. However, in my report of September 17, I was obliged to leave it undetermined whether these bacilli do not belong, like so many other bacteria, to the regular parasites of the human intestine, which under the influence of the choleraic process are enabled to penetrate within the mucous membrane. At that time sufficiently marked characters were still lacking for distinguishing these bacilli from other intestinal bacilli of a very similar shape. But this want has now fortunately been supplied; for with the aid of the methods pursued by the Board of Health, which have also proved most reliable on this occasion, we succeeded in isolating the bacilli from the intestinal contents of the least complicated cases of cholera, and in cultivating them in pure cultures. A minute observation of the bacilli in these pure cultures has led to the discovery of some very characteristic peculiarities as to their shape and mode of growth in gelatine, by which we have been enabled to distinguish them with certainty from other bacilli. We had now the means for definitely deciding the question whether these bacilli belong to the ordinary inhabitants of the intestine, or whether they exclusively occurred in the intestine of individuals suffering from cholera. For this purpose, again by aid of the gelatine cultures, we endeavored to demonstrate the bacilli in the choleraic discharges and in the intestinal contents after death from cholera, in which task we succeeded in all the cases examined in this city. On the other hand, a similar examination of the intestinal contents in other diseases gave evidence that the bacilli met with in cases of cholera were invariably absent. Thus far the research has been carried out on the bodies of six cases of pneumonia, dysentery, phthisis, and kidney disease. Nor has it been possible to find bacilli similar to the cholera bacilli anywhere in the intestinal contents of animals, and in other substances abounding with bacteria.

"If these observations should be confirmed on further investigation, a very important result will have been gained. Indeed, if these bacilli, endowed with specific properties, belong quite exclusively to the cholera process, the etiological connection between the prevalence of the same and the cholera would barely admit of doubt, even if the reproduction of the disease in living animals should fail. But in this latter respect things seem to be in our favor, since several experiments recently made on animals have given results which allow us to hope for further success. Besides these experiments, the Commission has been occupied with getting the best possible information about the behaviour of cholera in the city of Calcutta. In cities outside of India, which are only exposed at long intervals to cholera infection, it is impossible to make out with certainty the influence exerted on this disease by sanitary improvements, such as the supply of good drinking water, drainage of the soil, etc., since it must always be a matter of chance whether such a locality be once or often the seat of the disease. But in cities like Calcutta, which every year have a high mortality from cholera, each measure that operates successfully against the disease must be followed by a more or less remarkable and lasting decrease in the mortality. As a matter of fact, in Calcutta the cholera has decreased in a striking manner since 1870. Before this year the annual average mortality was 10.1 per 1000 inhabitants. Since 1870 it has fallen to 3 per 1000, or more than threefold. This fact, deserving the utmost attention, must carry indications on the most successful means of attacking the disease. The physicians of this city nearly all agree in the opinion that the decrease of the cholera is solely owing to the introduction of a drinking-water supply. It will be an important business for the Commissioners, by personal study and inspection, to arrive at an unbiased judgment on this point. For this end they have visited the waterworks as well as the sewage arrangements of Calcutta. A number of samples of river water, before and after infiltration, in the waterworks of Puttah, have also been examined, and the drinking water supplied to the city has been found of excellent quality.

"I learn from the medical journals that the French Commissioners sent to Egypt to investigate cholera declare in their report that they have gained other results than those communicated by myself, having found organisms in the blood al-

leged to be peculiar to cholera. Since this might give rise to the impression that the researches of the German Commission were going in a wrong direction, I think it necessary to state to your excellency my views upon the above statements. In the blood of the healthy man, besides red and white blood-corpuscles, there exist, in varying numbers, small, roundish, pale elements, the so-called blood-plates (Blutplättchen). In some febrile diseases—typhus fever and pneumonia, for instance—these elements are greatly multiplied, and, in consequence of their resemblance to micro-organisms, have been repeatedly taken for bacteria. In the blood of individuals suffering from cholera, and of those who die from this disease, they are almost always increased, as we were able to ascertain in the cases of cholera examined by us. This fact, after all, is not a new one, having been already mentioned by former investigators. Dr. D. Cunningham, for instance, as early as 1872, in his 'Microscopical and Physiological Researches into the Nature of the Agents producing Cholera,' has given a very good figure of these formed elements of the choleraic blood. Now, since even the most approved methods of examination do not permit of the recognition in the cholera-blood of any other elements similar to bacteria, and since the description given by the French Commission corresponds in every way with the above-mentioned blood-plates, I cannot but argue that the French Commissioners, falling into the same error as previous investigators, have mistaken the 'Blutplättchen' for specific organisms. Any etiological connection with cholera cannot be ascribed to these blood-plates, because, as I already mentioned, these elements are also met with in the blood of healthy individuals, and others suffering from other diseases."

Since the publication of the above, a telegram from Calcutta announces that Drs. Koch, Fischer, and Gaffky have discovered the cholera bacillus in a water tank.

---

### Physostigma and Eserine in the Night-sweating of Phthisis.

Dr. William Murrell thus writes in the *Practitioner*, December, 1883:

On theoretical grounds, it might be supposed that physostigma would be useful in the treatment of sweating. It is allied in its physiological action to jaborandi, pilocarpin, and muscarin, whilst it is antagonized by atropin, daturin, hyoscyamin, and homatropin.

I have used physostigma and the salts of its alkaloid in the treatment of the night sweating of phthisis for nearly two years, and have notes of over fifty cases. Of these, thirty-three were males and seventeen females. Of the adults, thirty-eight were between the ages of twenty and thirty-nine. The oldest patient was forty-nine, the youngest was a girl of four. They were all out-patients at the Royal Hospital for Diseases of the Chest, and they were all suffering from phthisis. Their symptoms were those usually met with in these cases—cough, expectoration, more or less hæmoptysis, loss of flesh, and night-sweating. With regard to physical signs, all stages of the disease were represented; in some there was simply consolidation, others had moist sounds over the chest, and in others, again, the indications of the existence of a cavity were apparent. The sweating was in every instance profuse, only well-marked cases being selected for observation. It is hardly necessary to say that whilst the physostigma was being taken no other treatment was adopted. The only exception to this was in the case of cod liver oil. If the oil had been taken continuously for some time, it was thought better to allow the patient to go on with it, rather than to introduce a disturbing element by discontinuing its use.

Of the fifty cases, thirty-four were treated with physostigma itself. The preparation was the extract, the dose one-tenth of a grain made into pilules with sugar of milk. In ten cases one pilule only was given at bedtime, and in eight of these, the sweating was completely arrested by the fourth or fifth night. Of the two cases of failure, one was relieved by two pilules of physostigma at bedtime, and the other by a twenty-grain dose of agaric. In twenty-four cases the physostigma pilules were given three times during the night, and this gave even better results. In most cases the sweating was checked the first or second night, and in every case it had almost ceased by the end of the week. In some cases, where there was profuse sweating during the day as well as at night, a pilule was given every four hours. The dose is too small to produce "untoward effects," and no hesitation need be felt in repeating it frequently. The sweating once stopped, does not, as a rule, return for three weeks or a month, but at the expiration of that time it is usually necessary to resume the treatment. In two cases in which the physostigma failed to act promptly, Shoemaker's oleate of zinc was used as a dusting powder at bedtime with excellent effect. This new oleate is a beautiful greyish-white soft powder; but as it has a slight, though hardly perceptible, odor, it should be prescribed with the addition of $\frac{1}{500}$ part of thymol. The combination is a pleasant one, and succeeds admirably, not only in excessive sweating, but as a remedy for many acute and irritable skin diseases.

I have used three salts of eserine—the hydrobromate, salicylate, and sulphate—and all three answer equally well. The dose best adapted for the treatment of excessive sweating is the sixtieth part of a grain, and this may be conveniently made into pilules, one to be taken three or four times during the night. In fifteen consecutive cases in which I gave them I had no failures, although it is hardly likely that this mode of treatment will succeed in every case.

Physostigma is undoubtedly a good remedy for excessive sweating, but there is no reason to suppose that it will take the place of other and better known modes of treatment. It may be said that we have now so many remedies for sweating, that practically it is not desirable to extend the list. This may be true; but on purely pharmacological grounds the use of Calabar bean to check sweating is of interest.

In one case of phthisis I gave the patient at intervals six hypodermic injections of a sixtieth of a grain of sulphate of eserine. The temperature was taken every four hours for six weeks, but I could not see that it influenced it in any way.

### The Treatment of Bright's Disease.

From an article by Dr. N. M. Baskett. in the *St. Louis Courier of Med.*, January, 1884, we note as follows:

The diagnosis being made, the question of treatment occurs; and I shall give my own plan of treatment. Most of the authors object to the use of mercurials in Bright's disease, because the system is so easily ptyalized. This may be true, but in the acute form of the disease I consider them the most reliable agents we have for its successful treatment. I always use them, and have never yet salivated a patient. My usual plan, if there is much œdema, with impeded heart-action, is to give the following recipe:

| | |
|---|---|
| ℞. Hydrarg. chlor. mit., | gr. ss. |
| Sodii bicarb., | grs. ijss. |

M. Ft. chart No. j.

S. One powder twice a day.

In conjunction with this, I give night and morning:

| | |
|---|---|
| ℞. Potass. bitart., | ℥j vel jss. |
| Jalapæ pulv., | grs. viij. |
| Gambogiæ pulv., | gr. j. |

M. Ft. chart No. j.

Should this not cause an elimination of the watery elements rapid enough, and there is danger of uremic coma or apoplexy from retardation of the blood, I add:

| | |
|---|---|
| R. Pilocarpin muriat., | gr. j. |
| Sacchari lactis, | grs. x. |

M. Ft. chart No. x.

S. One three times per day.

For the action of the heart and system, I use the following tonic, varying the ingredients to suit the exigencies of the case:

℞. Potass. iodid.; tinct. digitalis; syr. squills; liq. ammon. acetas; fl. ext. phytolac dec.; syr. sarsap. comp.

These ingredients, given according to the age and condition of the patient and the effect desired.

Under this treatment my acute cases have always improved rapidly. I have always seen a cessation of the graver symptoms in a few days. Of course I do not continue the mercurials long after the dropsy is subdued. But I have frequently found it necessary to return to them when the symptoms manifested themselves, and always with benefit.

In the chronic condition, the most that can be done is to keep the bowels regular and build up the system with tonics. For this purpose, I find nothing better than the comp. jalap powder, the alterative mixture mentioned above, and a teaspoonful of the ferri nitrogeniz. comp., as manufactured by Chapman, Green & Co. This to be taken three times per day, after meals. Occasionally I find it beneficial to give the powders of pilocarpin three or four days in succession.

With these measures, these patients will enjoy a fair degree of health, and be able to attend to the lighter forms of labor. In the last two years I have attended five cases of acute and chronic albuminuria. None of these patients have died of the disease. One of them, an old gentleman, sixty-seven years of age, died a few weeks ago of capillary bronchitis, with which he had suffered for years.

The question of dietetics during the disease is discussed by many writers. Of course, I always caution my patients to avoid indigestible food. Anything disagreeing with them in health will certainly disagree during the disease. But beyond this I do not limit them. Some authors condemn the use of albuminous foods, which, to me, seems a great mistake. Albumen is essential to life. The waste going on in the system can only be supported by a constant supply of material. If it is not furnished with the food, the tissues of the system will be broken down to supply it. In fact, it is highly probable that the albumen is supplied from tissues of the system. Let the patient eat, then, anything which agrees with his digestive apparatus, and trust to the recuperative powers of nature and proper remedial agencies to eventually re-establish a normal equilibrium.

---

### The Organic Phosphorus in Urine.

The *Lancet*, January 5, 1884, says: Glycerin-phosphoric acid has been found in the urine in leukæmia and in certain cases of chyluria, and there is now reason to believe that in extremely minute quantities it is a normal constituent of urine. Sotnischewsky has shown that if the phosphoric acid in urine be estimated in the ordinary way, after the urine has been boiled for some time with strong nitric acid, the amount of phosphoric acid indicated is more than that of the same urine which has not been so treated—the inference being that the boiling with nitric acid oxidizes the phosphorus in combination with organic matter in the urine. Zuelzer confirms Sotnischewsky, and, in addition, has made a series of observations on healthy animals under varied conditions of diet, etc., and also in various diseases in man. He finds that the amount of what for convenience we designate organic phosphorus is extremely small in healthy individuals on ordinary diet, but that it is considerably increased by feeding with brain substance and fatty matters. The morbid conditions in which the most marked increase occurred was in a case of dementia, and in several instances after the administration of chloroform. In a case of diabetes, the amount found was also considerable. These observations are of interest as being likely to elucidate several obscure points with regard to the tissue metamorphosis that occurs in nervous diseases. Hitherto the evidence obtained by an estimation of the phosphates in these diseases has been disappointing, and of a negative character. But if, as is very likely, the phosphates present in urine only represent the normal tissue metabolism of the body generally, and the glycerin-phosphoric acid that of the phosphorized constituents of the nervous system, then it is not a matter for surprise that our labors in the past have been so unsatisfactory, since we have not recognized the possibility of phosphorus being found in the urine in this form. In future investigations it will be necessary to determine both separately, and to clearly express their relationship. When this has been done in a series of cases, there can be little doubt that we shall be able to discriminate between the increase of phosphoric acid due to general tissue metabolism and that caused by disturbances of nutrition in the nervous system, and thus elucidate the mysterious *rôle* played by phosphorus in the organism generally.

# Reviews and Book Notices.

## NOTES ON CURRENT MEDICAL LITERATURE.

——A case of multiple sarcoma of the skin, closely resembling leprosy, is described in a brochure by Dr. James Nevins Hyde, of Chicago.

——An interesting pamphlet on the therapeutic uses of peroxide of hydrogen, especially in diphtheria, has appeared from the pen of Dr. R. J. Nunn, of Savannah, Ga. He records some striking observations, and certainly this curious agent merits closer investigation.

——There are 50,000 insane persons in the United States not in asylums. How they should be cared for is one of the main questions of an essay by Dr. Samuel Ayres, of Pittsburgh. He stigmatizes as a mistaken idea the one which so generally prevails, that because a person is insane he must be sent to an asylum. Insanity in its forming stage may be easily cured, and there is no necessity for inflicting upon patient and family the mortification and grief of asylum confinement.

——A case of epithelioma arising from local irritation is recorded by Dr. J. Solis Cohen in a late reprint from the *Laryngological Transactions.*

——In a reprint from the *Columbus Med. Jour.*, Dr. W. H. Phillips writes an article in favor of the more extended employment of hydrotherapy. His suggestions are timely, and his points well taken. He shows that the good results do not depend on any curative element in the water, but on its intelligent application as an alterative, detergent and stimulant.

## BOOK NOTICES.

**A Year-Book of Surgery for 1883. Edited by** Charles H. Knight, M. D. 8vo., pp. 147. Price $1.50.

**A Year-Book of Therapeutics for 1883. Edited by** R. W. Amidon, M. D. 8vo., pp. 247. Price $1.50. G. P. Putnam's Sons, N. Y. City.

We cannot speak with much commendation of these compilations. It is not obvious what use they subserve. Made up, as they are, from extracts more or less condensed from a few leading journals, they are a poor substitute for the quarterly or semi-annual abstracts published, which can be had for less money, with more frequent issue, and containing more matter, at least as well arranged. The Year-Book of Surgery has no index, that of Therapeutics but a slight one, which does not name several important additions to our remedial resources within the time included.

**A Plea for the Cure of Rupture; or, The Pathology** of the Subcutaneous Operation by Injection for the Cure of Hernia. By Joseph H. Warren, A. M., M. D. Boston: James R. Osgood & Co.

The author of this monograph explains in a series of short chapters the method he employs for bringing about obliterative inflammation in hernial protrusion by deep injections. He answers the questions which would be apt to suggest themselves to surgeons, and cites a number of cases.

**The Veins of the Brain and its Envelopes, their** Anatomy and bearing on the Intra-Cranial Circulation. By William Browning, M. D. F. B. O'Connor, jr., Brooklyn, N. Y.

This anatomical and pathological study has been carefully carried out, and the author deserves credit for the thoroughness of his researches. The topic is one intimately associated with important pathological and clinical facts, and this has been borne in mind and frequent applications made.

**Report of the Secretary of the State Board of** Health of West Virginia for 1881–3. Wheeling, Va.

In this volume of 300 pages a large amount of useful information is condensed. Besides the proceedings of the Board, a number of special pages are inserted from competent hands on topics of value to the public, and generally put in such language as can be understood by ordinary readers. Thus some sensible advice is given on nursing the sick, on preventing malarial disease, on the care of the eyes, on ventilation, on the use of tobacco, etc. Although the profession may not find much that is new, the people at large cannot be too often or too thoroughly instructed on these points of daily hygiene. There are also some well-prepared articles on veterinary medicine and a number of pages of statistical information.

**The Pathology and Treatment of Gonorrhœa. By** J. K. Milton. Fifth edition. Wm. Wood & Co.

The work of Mr. Milton is a sensible one, based on personal observation in a great city (London), and expresses opinions little due to echoing the words of any master. Hence, while his treatise is fresh, readable, and suggestive, he has an arbitrariness of judgment, a positiveness of praise and condemnation, against which the younger reader should be on his guard. Few will be disappointed in its perusal, and none can fail to derive many useful hints from his pages.

THE

# Medical and Surgical Reporter,

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

D. G. BRINTON, M. D.,
JOSEPH F. EDWARDS, M. D., } EDITORS.

*The terms of subscription to the serial publications of this office are as follows, payable in advance:—*

| | |
|---|---|
| **Med. and Surg. Reporter (weekly), a year,** | **$5.00** |
| **Quarterly Compendium of Med. Science, -** | **2.50** |
| **Reporter and Compendium, - - - - -** | **6.00** |
| **Physician's Daily Pocket Record, - - -** | **1.50** |
| **Reporter and Pocket Record, - - - -** | **6.25** |
| **Reporter, Comp. and Pocket Record, - -** | **7.00** |

*For advertising terms address the office.*

*Marriages, Deaths, and Personals are inserted free of charge.*

*All letters should be addressed, and all checks and postal orders drawn to order of*

D. G. BRINTON, M. D.,
115 South Seventh Street,
PHILADELPHIA, PA.

THE

## QUARTERLY COMPENDIUM

OF

## MEDICAL SCIENCE.

The COMPENDIUM, formerly published every six months, appears now *every three months*. It is compiled with special reference to being taken *with the Reporter*, and none of the articles which appear in our weekly are reproduced in our quarterly publication. It is made up exclusively from other sources.

Each number of the *Quarterly Compendium* contains 150 pages of reading matter, carefully selected from American, British, and European medical journals, with a special view to the wants of the American physician. It is on excellent paper, and neatly bound in pamphlet form, with full table of contents and index.

The price of the COMPENDIUM is 75 cents a number, or $2.50 a year; and it will be found well worth it. But when taken with the REPORTER, we offer the two journals at the very low price of SIX DOLLARS, when paid for *strictly in advance* and directly to this office.

### THE NEW YORK STATE MEDICAL ASSOCIATION.

In a pamphlet of 43 pages, this Association, "founded February, 1884," assigns the reasons for its existence, and reports the proceedings of its first annual meeting.

As the profession knows, it was a question of "Code" or "No Code." The disreputable manner in which a conclave of New York city specialists managed to gain control of the New York State Medical Society, and commit it to action destructive of professional honor, is set forth in clear terms. It is proved that on a fair and full vote both the membership of the Society and the profession of the State of New York are opposed to the position of the State Society by a heavy majority. As Dr. Austin Flint remarked:

"The 'New Code' in effect removes the barrier dividing members of the regular profession from irregular practitioners; and, in this point of view, it is the sentiment of a large majority of the medical profession of the State, that the adoption of the 'New Code' will prove greatly detrimental to the honor, the interests, and the usefulness of the profession."

Nothing is more true than these words. No action is more certain to degrade the profession in the eyes of the public, and in the understanding of sound-thinking men, than this deliberate overthrow of the barrier between the regular, scientific practitioner, and every ignorant quack who manages to hold a diploma.

The physicians of New York, those who respect the honor and welfare of the profession more than some few consultation fees, have done well to cut loose from a clan of specialists, who have at heart only their own profit as a motive of action, and to it are willing to sacrifice not only their professional honor, but the honest sense of the Medical Society of their State.

One remark of the chairman of the meeting, Dr. H. D. Didama, we take occasion to quote:

"One other matter is worthy of consideration. The remarkable activity of a few leaders of the minority is well known. They havs been aided by certain medical journals in New York and elsewhere. These journals, in violation of all sense of propriety, have received our money for their support, and have then, week after week,

thrust their misrepresentations, their boasts, their puerile arguments, and their pitiful sophistries, into our unwilling faces.

"I need not intimate that there is a remedy for this evil also; that there are medical journals, able and deserving our support, and disposed to give us at least civil treatment."

We have observed the fact here stated—the singular warmth of certain journals for this ill-advised movement. By so doing they are working a personal injury to every one of their subscribers, except, perhaps, specialists in large cities, and these will feel it sooner or later. They should be made to see that they do not represent the opinion of the profession, and that their course is one destructive of its best interests.

---

### ALBUMINURIA VS. BRIGHT'S DISEASE.

A few years ago, when albumen was detected in the urine, a diagnosis of Bright's disease, and a very gloomy prognosis was the consequence. Albuminuria and Bright's disease were usually regarded as but different names for the same disease, for a serious degenerative disease of the kidney. Now, all is different, and while the majority of physicians realize that albuminous urine does not necessarily imply kidney disease, yet there is a tendency among many, in their practice, to ignore this fact, and oftentimes to give a hasty diagnosis and prognosis, based upon the presence of albumen, and which the subsequent history of the case fails to substantiate.

Albuminuria may be the result of many causes, among which, for the purposes of illustration, may be cited a temporary congestion of the kidney, as from suddenly plunging into cold water (for a distinguished English authority has recently stated, that he believes that if the urine were examined immediately after coming out of an ocean bath, that of nearly every one would be found to contain albumen, a transient albuminuria being produced by action of the cold water on the body, determining the blood to, and causing a temporary congestion of the kidneys), faulty digestion, by which according to Semmola, the albumen of the blood, instead of being nutritious, is excrementitious, and is removed by the kidneys. These two instances will suffice to point the statement with which, as has been said, we are already familiar, that albuminuria does not necessarily imply Bright's disease. What then, you may ask, does indicate degenerative kidney disease? We must answer, that the diagnosis of Bright's disease is, to-day, one of the nicest problems in diagnosis that the physician can have presented to him. There are no absolutely pathognomonic signs, since all of the usually accredited symptoms may be present when the disease is absent. We can, however, in very many cases form a fairly accurate opinion; but it would take much more space than we can afford, to clearly elucidate this question. In view of the increasing prevalence of this disease, of its insidious nature, of the difficulty of diagnosis, and of its subserviency to hygienic laws, we know of no more important reading for the general practitioner than a good, recent work on this subject, for the views of to-day are altogether different from the views of ten years ago. The point that we wish particularly to emphasize, and to do so we will repeat, is that albuminuria does not mean Bright's disease, and that he who makes his diagnosis solely on this symptom will be repeatedly doomed to disappointment.

---

### PIGMENTATION AND DISEASE.

One of the oldest divisions of the human race was that by color—the white, the yellow, the red, and the black varieties. To this day physiologists are not agreed as to the proximate causes of the variation in the amount of pigment deposited in the epidermic cells and in the hair. It is probable, as some have maintained, that it bears a definite relation to lung capacity; the more complete æration of the blood in races of ample pulmonary development enabling them to throw off the carbon by the lungs, while in races of diminished lung power, notably the negroes, this carbon being retained is deposited on the surface of the skin.

Certain it is that a large group of diseases stand related in frequency and severity to the amount of pigmentation observable.

Quite recently Prof. ALEXANDER GRAHAM BELL has commented on this fact with reference to some nervous diseases. Deafness is more common among whites than among negroes. Many deaf mutes have a peculiar pallid complexion. Epilepsy is decidedly a disease of the white races. Even in lower animals this holds true. Mr. LAWSON TAIT and others have observed both epilepsy and congenital deafness in white cats, and only in such as are white. He adds: "Every kind of white animal I have kept as a pet has been the subject of epilepsy."

The general rule may be laid down that in white races, and in those members of dark races who become white—to wit, albinos—diseases of the nervous system and of the liver are more marked both in frequency and severity; while in dark races, the affections most common and fatal are of the lungs and bowels.

This rule is based on observed anatomical and physiological facts, such as the greater complexity of the cerebral convolutions in whites, the smaller lungs of negroes, their proportionately more active livers, the brevity of the intestinal canal, etc.

It would be interesting to collect further observations on this racial nosology. Though the literature on it is not scanty, it is as yet insufficient to enable us to explain the problems presented with satisfaction. In this country there is an unusually fine field for observation, as the three races are in many parts side by side under the same conditions of life.

### THE M'GINNIS CASE AND PROFESSIONAL EXPERTS.

This case, which has been recently brought to a termination in this city, after a most protracted experience, is in some respects a noteworthy one. This man was condemned to death for the murder of his mother-in-law, and he has been hung under circumstances that do not seem altogether as they ought to be. His counsel recommended to the Governor of the State that the prisoner was of unsound mind, and requested a commission in lunacy to examine into and report upon his mental condition. Such a commission was appointed, and upon it were two physicians who have extensive reputation as alienists, and among the balance one distinguished surgeon. After deliberating, the commission united (with one single exception) in saying to the Governor that they believed the prisoner of unsound mind. This one dissentient was, as we have said, *a surgeon*, whose only qualification to pose as an expert in such cases is to be found in the fact that he married the daughter of a distinguished alienist. The minority report of *one* was received and acted upon, the Governor refused to interfere, and the man was hung. Extended comment is unnecessary; he who runs may read how ridiculous this case must make the usual methods of expert testimony appear to any sensible person.

## NOTES AND COMMENTS.

### Neuropathic Plica.

This singular condition is well illustrated in a case reported by Dr. J. F. Le Page, in the *Brit. Med. Jour.*, January 26, 1884:

"J. H., aged seventeen years, consulted me on September 30, 1882. She stated that for six or seven days she had felt ill, complaining of more or less general numbness; and that, on September 29, she suffered the whole day from severe headache, which affected chiefly the brow, together with the sensation of 'pins and needles' over the scalp. In the hope of obtaining relief, she, in the evening, washed her head in warm, but not hot, water. After partially drying her hair, which measured three feet one inch in length, with a towel, she commenced combing it out on the left side, in the presence of her parents, who are intelligent and reliable people, and, whilst so engaged, she felt a tearing sensation on the right side of her head, as though the hair were being pulled out, and, on placing her hand to her head, found that it was being drawn up. In one or two minutes nearly the whole of this long hair on the right side of the head was drawn into a hard lump. The parents, who witnessed this extraordinary phenomenon, spent a great portion of the night in a fruitless attempt to untangle the mass. The few hairs combed out were spread on her pillow while she slept; but afterwards most of them were found to be drawn up as before, although not tangled as was the larger mass.

On examination, I found the hair on the left

side of her head quite smooth, very slightly waved, and not in the least tangled nor drawn up. On the right side, extending to nearly the median line behind and to within an inch of the forehead, the whole mass was contracted to a hard tangled lump, which it appeared impossible to unravel. My patient's parents refused for some days to allow me to cut off the hair, as they, to use their own words, considered it 'a visitation from God.' On closer examination, I found that, under the superficial portion, the arrangement was strikingly peculiar, the hair being looped and festooned in a way which I might even describe as beautiful. Under the microscope, individual hairs appeared quite natural, but a very significant fact is brought to light; all the hairs which are contracted, closely curled, and intertwined, are, more or less, flat hairs, whilst those which are looped and festooned are round. Viewed without the microscope, it is at once evident that no dexterity could have produced the most remarkable condition—a condition which art could not produce. Menstrnation commenced when she was sixteen, and was irregular until six months before she consulted me. Since that time she had not menstruated. Her appetite was fairly good; her habits were sedentary."

---

**Puncture of the Aorta.**

The following case possesses sufficient medico-legal interest to allow Dr. T. Pagan Lowe (*Brit. Med. Jour.*, March 8, 1884,) to tell it in his own words: "A few nights ago, I was called in haste to see a man who had been been stabbed in a public house. I found the man dead, and learned from the bystanders that, about ten minutes before, he had been stabbed in the neck. Immediately on receipt of the blow, he exclaimed, "I am stabbed," and fell back into the arms of a man near him. He did not speak again, and died in about four minutes. On examination, I found a small triangular punctured wound situated on a level with the upper border of the sternum, just internal to the right sterno-clavicular joint; it measured three-quarters of an inch in one direction, and about half that in the other. A few drops of blood represented the whole of the hemorrhage that had taken place externally. At the necropsy the following day, I found that the weapon, which was a common pruning-knife, had taken a direction downwards and backwards, entering the thorax between the cartilages of the first and second ribs, notching the sternum. It had perforated both layers of the anterior fold of the right pleura, entered the pericardium on its upper aspect, and penetrated the anterior wall of the aorta one inch from the valves. Blood had been poured out in huge quantities, filling the pericardium, and finding its way along the track of the wound into the right pleura, which it had about half filled. No other important structures were injured.

"The small amount of external hemorrhage is a notable feature in the case. It is easily accounted for. The skin-wound, owing to the direction of the blow downwards, was valvular, and retracted upwards as soon as the knife was withdrawn. Some impediment in this way was offered to the outward escape of blood; but the chief factor in its prevention was the laying open of the right pleural cavity, into which the hemorrhage had free vent. This latter circumstance would also tend to relieve the distension of the pericardium, and thus account for the length of time the patient survived such an injury."

---

**Epithelioma of Penis; Amputation; Transplantation of Urethra through the Perineum.**

As of interest in connection with the two similar cases that we have recorded, we note the following instructive case from the *Lancet*, January 12, 1884:

F. T., a baker, aged fifty-two, was admitted into hospital July 16, 1883. He declared that he never had any chancre or clap. Nine months ago he noticed a small tumor about the size of a pea on the under part of the glans, close to the frænum preputii. In a month's time the growth was as large as a hazel-nut, and he began to suffer from the most painful priapisms. Up to four months ago, he had been able always to uncover the glans penis.

The day following his admission, Mr. Storry slit up the foreskin, and removed a growth about the size of an ordinary hazel-nut, together with a portion of the glans penis from the under side of the penis.

In a fortnight the patient was made an out-patient; but he presented himself in about six weeks' time with a return growth, and with some considerable infiltration of the penis. His great complaint was his terrible suffering at night from painful erections. There were no enlarged glands in the groin. Mr. Storry, under ether, amputated the penis, after the method adopted by Prof. Thiersch, a short account of which is given in the May number of the *British Medical Journal* for 1878. The urethra was dissected out and transplanted through a hole in the perineum, and a drainage-tube was passed through the whole

length of the scrotum. Within twenty-four hours the scrotum filled with blood, which caused the stitches to give way, and, of course, delayed union. At the end of six weeks from the date of operation the patient was discharged, with the wound almost healed, passing his urine easily and comfortably through the hole in the perineum, to the edges of which the urethra was attached. Three months after the operation he appeared at the hospital to show himself, having gained in flesh, and feeling "a new man," as he expressed himself, declaring he had no pain whatever, and could pass his urine with great ease and comfort, although he was obliged to take down his trousers altogether to micturate.

---

**Direct Pulmonary Therapeutics.**

A foreign correspondent of a contemporary says that at a recent meeting of the Académie de Médecine, M. Sandras objected to treating bronchitis, laryngitis, and colds, by entrusting therapeutic agents to the stomach and intestinal canal. The drug thus administered is absorbed, passes into the circulation, and reaches the organs requiring treatment after a very roundabout journey, even if it do not lose its way there. M. Sandras recommends that the laryngeal and pulmonary mucous membranes be acted upon by direct inhalation of the vapor of turpentine and tar. The necessary apparatus consists of a bottle with a cork presenting two orifices. An India-rubber tube is passed through one of the orifices, with its end at a little distance above the level of the fluid in the bottle. Another tube is passed through the second orifice; this is in communication with the air, and is passed into the fluid. The bottle is half-filled with a mixture of chloroform, other, and turpentine, or with 100 grammes of turpentine poured on to twenty grammes of Norwegian tar. The inhalations should take place three times a day, and be kept up for five minutes, at the rate of fifteen to twenty inspirations a minute. M. Sandras asserts that this treatment rarely fails to cure coughs, and all the unpleasant complications attending colds and bronchitis.

---

**A Word Against Jequirity.**

It seems that Parisotti and Galezowski ("Recueil d'Ophthalmologie," August, 1883,) have not succeeded as well with infusions of jequirity in the treatment of granulations as Wecker and others have. They obtained their infusion of the beans from the same pharmacist who furnished Wecker with his infusions; and they employed it with rigid regard to the directions given by Wecker; but they produced only negative results. They noted the appearance of a completely smooth surface of the conjuctiva where the granulations had been, but at the end of two weeks the lids had almost regained their normal thickness, and the granulations had remained completely intact. If the conjunctival surface be examined before the swelling has entirely disappeared, there will be seen a united, almost glistening surface, resembling cicatricial tissue, but which is only caused by the swelling of the tissues. During this period the granulations remain concealed by the swelling of the mucous membrane; but, as soon as the inflammation has completely disappeared, the granulations will be found in their primitive state, without having undergone any modification. Moreover, they think that this method of treatment is not without danger to the cornea, which may be even entirely destroyed.

---

**Turpentine as a Prophylactic in Infectious Diseases.**

The *Med. Record* tells us that H. Vilandt writes in the *Ugeskrift for Laeger*, vol. viii., No. 8, 1883, concerning the value of the oil of turpentine in the treatment and prophylaxis of diphtheria and the exanthematous diseases. He states that he has never seen any of these diseases spread from a sick child to other members of the family when this remedy was employed. In many of his cases no isolation could be attempted, as the mother was the only female in the family, and was obliged to take care of both the sick and the well, continually passing back and forth from one to the other. His method was to pour from twenty to forty drops of a mixture of equal parts of turpentine and carbolic acid into a kettle of water, which was kept simmering over a slow fire, so that the air of the sick-room was constantly impregnated with the odor of these two substances. He claims also that by this means a favorable influence is exerted upon the exudation in diphtheria, although it is by no means curative of the disease, and should never be relied upon to the exclusion of other remedies.

---

**Examination of Fæces of Infants.**

Dr. N. A. Randolph, of this city, has made some noteworthy observations on the fæces of starch-fed infants, and the fæces of infants after inunction of cod liver oil. On the former he reaches the following conclusions:

1. That *many* infants under three months can digest starch foods.

2. That the individual variations in this regard

are so numerous that no broad and general statement can be made as to the period at which infants *begin* to digest starches; and,

3. That the physican can be absolutely certain that a farinaceous ingredient in the diet of a young infant is beneficial, only by an examination of the dejecta under such diet.

Of inunction he found that in eighty per cent. of the cases a notable increase of the fatty matters passed per anum was observed after the persistent inunction of cod liver oil. In the remaining twenty per cent. the quantity of fæcal fats was unaltered by the treatment, and in one case remained negative throughout.

---

**Social Relations of Inebriety.**

Some conclusions on this subject reached by Dr. Crothers, of Hartford, are as follows:

1. Inebriety as a disease was noted in antiquity, and has ever been considered a form of insanity, marked by a progressive march or order of events, from certain physical causes, on to death.

2. The march of inebriety is in waves and currents, controlled by some unknown law, clearly within the range of a wider knowledge to prevent and remedy.

3. The treatment of inebriety by penal methods is disastrous to the victim, actually intensifying and making the disorder more incurable.

4. Physical treatment and isolation in special work-house hospitals, where the best conditions of physical and mental health can be applied and maintained for a long time, give the largest promise of cure and permanent restoration, and are the means suggested by nature and scientific study.

5. As a question of economy simply, it would be an immense gain to the tax-payer and society to thus quarantine these persons, and make them self-supporting. This is a fact whose practical character is well assured in many ways.

---

**Typhoid Fever Complicated by Nephritis.**

An interesting case from a diagnostic standpoint is that which Mr. Milnes reports in the *Brit. Med. Jour.*, February 16, 1884:

A nurse, who had been nursing cases of typhoid fever, was admitted into Addenbrooke's Hospital, suffering from high fever and pain across the loins; her urine was scanty, thick, and bloody, highly albuminous, and contained casts. There was no dropsy. She said she thought she had caught cold during a catamenial period a week before, and ever since had suffered from languor, feverishness, and pain across the loins. Five days after admission, a copious eruption of typhoid spots appeared, and for several days there was moderate diarrhœa. The fever ran a rather short course, and the albumen gradually disappeared from the urine.

---

**Artificial Food for Children.**

There has been great discussion as to the qualifications of condensed milk as a substitute for the human article. Some men strongly advocate its use, while others bitterly condemn it. After reporting a case of infantile scurvy, in a foreign exchange, Dr. Edmund Owen says:

"The opinion which I have been compelled to form in my work in the out-patient rooms of the Children's Hospital, is that the worst nourished of the hand-fed infants are those that have been reared upon condensed milk and the various patent food stuffs; and that whenever an infant cannot have human breast-milk, the best substitute will be found in fresh cow's milk prepared and administered *secundum artem.*"

---

**The Absorptive Power of the Skin.**

Since drugs are frequently used by inunction, it will be interesting to read that from experiments made with salicylic acid, salicylate of sodium, and tincture of iodine, applied to the skin as simple solutions or in the form of spray and with mercurial ointment, Dr. Ritten (*Deutsch. Archiv. für Klin. Med.*, p. 143, vol. ,xxxiv.) comes to the conclusion that the normal skin has not the power of absorbing these substances either in a fluid condition or in the form of ointment or of spray, but that all substances which irritate the skin may produce, when sufficiently vigorously applied, a solution of continuity, and may then be absorbed from the altered skin.

---

**The Value of Internal Œsophagotomy.**

Stricture of the œsophagus has hitherto been usually ranked among that class of ailments for which little could be done. Dr. Henry B. Sands has an article on the subject in the *N. Y. Med. Jour.*, February 23, 1884, which thus concludes:

On reviewing the whole subject, we may conclude that certain forms of œsophageal stricture, which have heretofore proved unmanageable, are no longer beyond the reach of surgical art; and that in some of these, the internal œsophagotomy is capable, not only of saving life, but also of re-establishing the function of deglutition, so essential to its enjoyment.

**Relapsing Fever Complicated with Small-pox.**

In the *Ejened Klin. Gazeta*, 1883, May 15, Dr. B. P. Brajnikoff publishes a case in which a patient, aged eighteen, admitted for relapsing fever, during the fourth relapse of the latter developed all the signs of small-pox. Microscopical examination of the blood after the appearance of variolous rash showed the presence of Obermeier's spirilla. The small-pox took its usual course. The patient recovered.

## SPECIAL REPORT.

### PROGRESS OF OTOLOGY.

BY LAURENCE TURNBULL, M. D.

**Fatal Suppuration of the Middle Ear, and Hemorrhages from the Ear.**

Hassler (*A. f. O.*, vol. xviii.) has collected twenty-one cases of injuries of the carotid artery in its passage through the carotid canal of the temporal bone. Thirteen of these cases were of suppuration of the middle ear, terminating fatally from erosion of its walls; and of the other eight cases there was serious, and in some of them fatal hemorrhage, one of which occurred in his own practice. At the post-mortem examination in his case, a portion of the carotid canal adjoining the tympanic cavity, was carious and defective. The destruction was associated with spreading caries of the temporal bone, and the osseous gap in the carotid canal was still occluded with sequestra. (A similar condition existed in a case which I presented at a meeting of the Philadelphia County Medical Society.) The aperture in the softened arterial wall was found at the spot where the course of the vessel passed from the vertical to the horizontal direction.

Boke (*Archiv für Ohrenheilkunde*, vol. xx., p. 47) has reported two additional cases, in which there was fatal hemorrhage—in one from the bulbus venæ jugularis; in the other, from the sinus petrosum inferior.

Cases of serious hemorrhages from the large vessels in the vicinity of the tympanum, which terminated fatally, are fortunately rare, and are generally the result of long-continued and improperly-treated otorrhœas. They are found in scrofulous and tubercular individuals.

I have seen and treated a number of cases of serious hemorrhages from the ear following severe blows or falls upon the external ear and face. In one recent case the hemorrhage was caused by a fall upon the chin, in which profuse bleeding took place from both ears without apparent perforation of the membrana tympani. My usual course of treatment has been injections of ice water and powdered persulphate of iron, hypodermic injection of ergotine, or the mixture of acid tannic with gallic acid of "Mackenzie" given internally. When these means fail, digital compression of the carotid is maintained, or, as a dernier resort, ligature of the carotid.

The following is an interesting and instructive case of another form of hemorrhage from the ears: I was called to see Mrs. Hannah N., aged thirty-three years, on April 14, 1883, and found her to be a delicate woman, who had suffered from disturbance of the heart and kidneys when a girl, but who had since never entirely recovered therefrom. After marriage, she had conceived and borne three children, only one, however, living. The fœtus in the present instance had been dead for some time, and considerable force had been employed in the delivery, with great pressure upon the abdomen, and exposure. She recovered to a degree from the miscarriage, but suffered from sick stomach, pain in the region of the liver, difficulty of breathing, and, not regaining strength, was anæmic and feeble. Early in March, 1883, she had an acute attack of "gathering in her head of both ears" (otitis media purulenta), which was followed by a discharge of blood—at times quite profuse, and then again a continuous oozing, which had kept up since the eighth of that month. The blood was most of the time of a bright color, but at intervals mixed with pus.

The previously attending physicians had plugged the ears, and the following was the condition when I visited the patient: Blood was escaping through the dilated eustachian tubes into the naso-pharynx, which was accompanied by fainting attacks. She had at three different times fainting, with convulsive attacks. However, not to anticipate, when I examined her, the pulse was very feeble, respiration rapid and irregular, face yellowish, abdomen sunken, and no tumor present except some enlargement of the liver. Her mouth was full of clotted blood, part of which she removed by her fingers or had it wiped out, but the majority must have been swallowed and afterwards vomited in the form of partly-digested blood mixed with bile. The diagnosis as received from two physicians not of our faith was *malignant disease of the stomach.*

The following is a report of the autopsy upon the body of Mrs. N., performed by my assistant, Dr. L. W. Steinbach: The body presents a somewhat emaciated appearance, subcutaneous adipose tissue being rather scanty, but the muscular

structure not extensively wasted. The abdominal parietes present a greenish, livid discoloration. There exist pleuritic adhesions of the left lung's apex anteriorly, and the lower lobe postero-laterally, but none of the right lung. The structure of both lungs is normal, with the exception of a very limited tubercular deposit in the right apex. The heart occupies a normal position, is considerably and uniformly hypertrophied, its auricles empty, and each ventricle containing a large clot of apparently freshly-formed fibrin.

The omentum had a yellowish-green color. The intestines were moderately filled with gas and greenish-yellow liquid fæces. The stomach was moderately distended, and its walls thin, discolored, and not congested. It contained about a pint of reddish-brown liquid, of the consistency of thick cream—apparently partly-digested blood mixed with gastric juice. The liver is slightly enlarged and greatly discolored on its posterior surface by bile pigment; its structure being apparently normal. The gall bladder was large and full. The spleen had twice its normal size and weight. The right kidney, larger than usual, presented otherwise a healthy appearance. The left kidney being atrophied, with its cortical and medullary substance disappeared, only the collapsed (not contracted) investing capsule, the pelvis, and other fibrous structures, remaining.

Her bladder was normal, but the uterus bore at its os the cicatricial marks of former ulceration. The ovaries were markedly enlarged, having the dimensions of a laage-sized peach-stone. The left fallopian tube remained impervious, but in other respects the uterus and its appendages presented nothing abnormal.

The brain was not examined. The temporal bone on the right side being forcibly removed for examination, caused a breaking or tearing off of the carotid artery from the carotid canal, and the condition of this vessel could not therefore be ascertained. The middle ear and the external auditory canal contained some dried blood. The upper two-thirds of the tympanic membrane were destroyed, leaving a crescent-shaped segment below intact. A portion of the handle of the malleus was wanting, though not broken off (by manipulation), though otherwise the ossicula were intact. There was no sign of caries or necrosis of any part of the temporal bone. We would therefore class this case as one of a true otitis media hemorrhagica, and the blood may have come from one of the sinuses.

—In Vienna, in 1882, there were 16,605 births in wedlock, and 12,657 illigitimate.

## CORRESPONDENCE.

### Salicylic Acid in Cerebro-Spinal Meningitis.

EDS. MED. AND SURG. REPORTER:—

I see in your issue of the REPORTER of March 8, 1884, page 313, an article with the above caption, taken from the *St. Louis Courier of Medicine* for February, 1884, in which my name is referred to by Dr. D. C. Ramsey, as "verifying his good success with salicylic acid in the treatment of cerebro-spinal meningitis." The *facts* are as follows:

I took Dr. Ramsey in as a one-fourth partner, in the autumn of 1880, for one year—he being then in his twenty-second year of age, and having had six months' practice, while I had been established here as a practitioner for over twenty years. During the winter of 1880–81, we had cerebro-spinal meningitis in an epidemic form.

Toward the very latter end of the epidemic, being struck with the frequent and sudden metastasis (or apparent metastasis) from the head and neck, to one or more of the larger joints, thinking the investing membranes of the brain and spinal cord were of much the same character as the ligaments and coverings of the joints, that the pain in cerebro-spinal meningitis was of the same acute degree as in inflammatory rheumatism, that as the intense pain subsided the effusion came on as in joints affected by rheumatism, I could not resist the thought that there must be, to say the least of it, a great similarity in the two diseases; and consequently *if* salicylic acid was anything approaching a specific in acute rheumatism, it should do good in cerebro-spinal meningitis. These reflections I communicated to Dr. Ramsey and Dr. E. V. Spencer, of this place, at the time, also to Dr. Wm. M. Holton and Dr. McDonnald, of New Harmony, Ind., saying that my convictions were so deeply rooted, that if another opportunity offered I should certainly make the trial.

At that time I did not think, by Dr. Ramsey's actions and Dr. Spencer's words, that either of them were of my way of thinking, and was very much surprised when Dr. Ramsey, last fall, read a paper "On the Use of Salicylic Acid in Cerebro-Spinal Meningitis," (since no other epidemic of the disease has occurred in his practice), before our little county medical society.

Since I first thought of trying salicylic acid in this disease, I have had but a single opportunity, and of course that was sporadic. This case was a German boy, fourteen years old. After an efficient cathartic, I gave him salicylic acid in solution with carbonate of ammonia and bicarbonate of soda, in fifteen-grain doses every three hours. Several doses having been given without, as far as I could see, benefiting him, I increased the dose to thirty grains every three hours. This seemed to have the desired effect, so I ordered the dose back to fifteen grains, extending the time to six hours. During the following day the symptoms became aggravated, when I again returned to the half-drachm doses. After three or four doses of that amount, he seemed much improved, and was returned to fifteen-grain doses every six hours.

From this time on he made a steady and rapid recovery on the fifteen-grain doses every six hours. One case, and that not during an epidemic, simply does not prove anything. Now, I am not alto-

gether in favor of one person "stealing another's thunder," and I am utterly opposed to stealing a man's thunder when he really has none to steal.

I consider the remedy entirely untried. What its effects may be during an epidemic, I deem perfectly problematical, trusting a sufficient number of the profession may think it worthy of investigation.

Too many, frequently those who have only been engaged in practice a short time, have to air themselves by appearing in print; and frequently by seeming worth, cause us to have to clear away such an immense amount of rubbish to get so little of worth or fact.

What we want are *candid* writers, with *practical* articles, based on a *thorough* experience, and not simply to have their names sounded abroad in the land; there certainly should be a higher ambition than that.

JOHN B. WEIVER, M. D.

*Mt. Vernon, Ind.*

---

### Blood-letting vs. Morphia in Puerperal Convulsions.

EDS. MED. AND SURG. REPORTER:—

The following case of puerperal convulsions may be of interest to the profession from the two remedial agents applied:

On the 21st of February, at 6 p. m., I was called to see Mrs. L., aged twenty-five, primipara, pregnant at full term; found patient vomiting; complained of pains incident to labor. Upon examination, found os undilated and rigid; pulse 100. Within a few moments, she was seized with a severe convulsion. As soon as practicable, gave ℞. potass. bromid., gr. x.; chloral hydrate, gr. x., which was immediately thrown up. Sent for Dr. Henry; then gave, hypodermically, ℞. morphia sulph., gr. ½. In one hour she had another convulsion, followed by same treatment, and continued to have them at same intervals, followed with same treatment, until the fourth convulsion occurred. At this period, there was no change of circulation (100), no progress in labor apparent, pupils contracted, skin moist, with profound sleep, which continued twenty-four hours from time of first convulsion. Then she aroused at short intervals, complaining of pain in back and uterus. Upon examination, found her in first stage of labor, which progressed nicely without anæsthetics or opiates. At 9 p. m. a still-born boy, of medium size, was born. Gave ℞. fl. ex. ergot in latter end of second stage; uterus contracted, with little hemorrhage—probably too little, as the sequel may show. Applied bandage, and within one hour, having other patients requiring my attention, I left her with Dr. H.

Patient rested quietly for five hours after delivery, when she was seized with a violent convulsion. I was summoned at once to return. Arrived in two hours after paroxysm; found doctor (not being equipped with a hypodermic instrument) had taken thirty ounces of blood from her arm. Circulation 100. Patient remained quiet by the aid of a few inhalations of chloroform upon any indication of emotion throughout the following day. Patient made a good recovery.

Now, the question may arise, should blood-letting have been the proper treatment after the first convulsion? If we had had the assurance of controlling the third stage of labor properly, blood-letting appears to have been indicated, and might have prevented a recurrence of them. The convulsions evidently were of a nervous character.

*Orient, Iowa.* H. V. MONNETT, M. D.

---

### Salicylic Acid in Cerebro-Spinal Meningitis.

EDS. MED. AND SURG. REPORTER:—

GENTLEMEN: In your journal of March 8th, I notice a comment on the use of salicylic acid in treatment of cerebro-spinal meningitis, by Dr. D. C. Ramsey, which prompts me to give my short experience with the remedy in that dread disease.

February 20, 1883.—I was called to see a very acute and severe attack of cerebro-spinal meningitis. The patient was a German boy, ten years of age; good constitution, strong and healthy. With quinia, bromide of potassium and gelsemium, I reduced the high fever in twenty-four hours; but the intense pain and suffering still remained. Having had good success with salicylic acid in acute rheumatism, the thought occurred to me: Why will it not be good in this case? Having never heard or read of salicylic acid being used in cerebro-spinal meningitis, I was a little careful in beginning the use of it. But thinking my patient would surely die any way, I determined to try it; and with from ten to twenty grain doses every six hours, I controlled the pains and gave my patient comparative ease. The rigidity of the muscles of the neck and back became less marked, and at times completely relaxed.

Fearing serious results from too prolonged administration in the young subject, I suspended the use of it, and immediately all the pain with intense suffering returned. Again I gave the salicylic acid, and my patient got quiet and slept for hours. I repeated this several times in the course of two weeks, with the same results. In the meantime, Dr. B., a very eminent physician, with an extensive experience in cerebro-spinal meningitis, was called in consultation. He marveled at the relief that the salicylic acid gave, but did not altogether approve of its administration. Nevertheless, I continued to give it at intervals, as it seemed to give more relief and do more good than anything else I could give, or rather did give.

He made a complete recovery in about twelve weeks, without any of the bad consequences that generally follow a majority of the severe cases of this disease.

The frontal headache, noises in the ears, etc., claimed by some from the use of salicylic acid, were not observed in this case, but *vice versa*. When he was screaming loud enough to be heard into the street, with pain in the head and noise in the ears, a full dose or two of salicylic acid would calm him down and give him some rest.

I will also mention that the quantity of urine voided when he was taking the salicylic acid was twice as much, or nearly so, as when he was not taking it.

Unfortunately, I took no notes in this case, consequently cannot report it as minutely as I would like to, but hope to learn and hear more of this remedy in the future.

J. CHEWNING, M. D.

*Renault, Ill., March* 13, 1884.

## News and Miscellany.

### Transactions of the Medical Society of Virginia, Fourteenth Session, 1883.

This Society has four hundred and forty-three members, of the fifteen hundred regular practitioners of the State. Of this number there is about an average attendance annually of one hundred.

The annual address to the public and profession was by I. Edgar Chancellor, M. D., on "Mineral Waters." This subject was also presented by M. G. Ellzey, M. D., on "The Therapeutic Value of Rawley Water," and by A. M. Fauntleroy, M. D., on "Medicinal and Therapeutic Properties of Rockbridge Alum Waters."

These several papers are interesting and exhaustive, and will contribute to direct the mind of the profession beyond our limits to the great value of the mineral waters of Virginia. For several years, the Society has in vain sought such information from committees.

Report, "Obstetrics and Diseases of Women," M. G. Ellzey, M. D., Washington, D. C. This paper strongly commends the adoption of the principles of Lister in obstetrical practice, and the observance of scrupulous purity in the lying-in chamber. The author deprecates the use of iron styptics, and Monsel's solution to relieve flooding, and prefers tannin, alum and ice. As to the relative advantages of home and hospital treatment of chronic uterine diseases, the craze after specialism is considered to have gone as far as the profession should sanction, otherwise this practice may degenerate into a bold system of advertising quackery. The author rightly maintains that unmarried females should not always be subjected to vaginal explorations in ordinary cases of dysmenorrhœa; the pessary, he pronounces to be a great-abused instrument, sometimes inducing ulceration, and even blood-poisoning. The report concludes with a warning as to the danger of the protracted use of opiates and alcoholic stimulants, resulting sometimes so disastrously to women of high social position, and inducing conditions of psychological disease and of morbid erotism.

Report on "Disease of Children," by Wm. H. Coggershall, M. D., is excellent. The suggestion of Dr. Denar, of London, as to the value of fluid extract of ergot in four to fifteen minim doses every three hours for the relief of whooping cough is endorsed. In cases of cholera infantum, ice-water injections, cold compresses to the abdomen, and internally, a cream of subnitras of bismuth, are recommended; also for *infantile convulsions*, bromide of sodium, one grain well diluted in a teaspoonful of water given every fifteen minutes; and for cancrum oris and aphthous sores, the local application of subnitras bismuth often repeated, with the usual disinfecting wash and supportive treatment.

Report on "Chemistry, Pharmacy, Materia Medica and Therapeutics," by A. M. Fauntleroy, M. D. Compressed discs for hypodermic use, as prepared by Wyeth & Bro., are commended to the trial of physicians as excellent and convenient forms to administer the salts of morphia, atropine, etc., which are rendered soluble by mixture with sodium chloride, or sulphate. Convallaria majalis—lily of the valley—in the form of tincture, Dr. Fauntleroy considers a valuable cardiac stimulant and tonic, free from the cumulative syncopal action of digitalis, though inferior in diuretic properties to the latter drug. The author concludes with the practical remark that "the earnestness displayed in the search for new remedies, and the critical testing of them by physiological methods, will tend to add to the resources of the healing art."

Report on "Medical Practice," S. K. Jackson, M. D. Dr. Jackson claims that during the present century epidemics of plague, Asiatic cholera, typhus or jail fever, and scurvy, to which list might be added yellow fever, have been arrested or prevented, and human life lengthened, and our ideas of the causation and the prevention of disease have been revolutionized. This report embraces the actual treating of diseases, especially those of germ origin. Quinine is the first-mentioned germicide, and is used to antidote and neutralize the sedative power of malarial poison; second, the various forms of mercury for the destruction of organisms productive of the suppurative processes of syphilis and phthisis pulmonalis; and, also, soda-bisulphite for the arrest of pulmonary abscess, the "modus operandi" of the latter being suggestive of the law that "no organism can live in the effete products of its own life, in its own excreta"

Second, there is a brief consideration of the chemical treatment of such diseases as cholera infantum, rheumatism, gout, and calculi, and finally is noticed Koch's great discovery of the existence of a parasitic organism in the tubercle of phthisis pulmonalis—a disease causing one seventh of the deaths of the human race. This parasite belongs to the rod-shaped bacteria. This interesting paper concludes with a tribute of praise to army and naval medical officers, "whose labors have already resulted in a marked decrease in the death-rate on shipboard and on land, due to improved sanitation and methods of the treatment of disease which have been suggested by modern science and by disinfection."

Reports on "Ophthalmology," are furnished by Charles M. Shields, M. D.; "How Shall We Remove Foreign Bodies from the Ear," by Julian J. Chisholm, M. D.; "Plastic Surgery of the Face," by L. McLane Tiffany, M. D.; "Injuries of the Eye," by Joseph A. White, M. D.

In a paper by W. C. Dabney, M. D., the bacillus tuberculosis question is briefly discussed. The theory of Koch that bacilli are only found in tubercular or caseous deposits, and are the essential and specific cause of tuberculosis, the author does not, as yet, consider fully established. If they were, it might be expected that nurses and attendants in hospitals for consumptives would contract the disease by inhaling the germs, which does not occur by experiments made at Brampton, Eng. A damp atmosphere and scrofulous habit, however, present the predisposing causes; and the presence of bacilli in the lungs, or other diseased organs, contributes to hasten the advance of the morbid process. The antiseptic and germicide treatment of tuberculosis is omitted. The chairman of the Committee on Hygiene, W. F. Barr, M. D., deplores in his report that the Legislature

of Virginia has refused to enact a statute regulating the practice of medicine in the State, and that the Board of Health has virtually become a nullity.

The subject for general discussion was Diphtheria, during which a valuable paper was read by Bedford Brown, M. D., of Alexandria, entitled, "Reminiscences of personal experience in the history of Diphtheria," covering a period of thirty years' time, and commencing in 1856. The distinguished author, whose opinions on surgery and medical practice have been favorably commented on abroad, urges the importance of the maxim of the sagacious Watson, viz., "Study constantly the tendency and mode of death:" this precaution, he adds, is of vital consequence in nearly all cases of diphtheria, since the danger may occur from septicæmia, uræmia, or paralysis of the reflex system of nerves, or from paresis of the organic system of nerves, resulting in an early and rapid decline of the strength of the heart's action, and of the corporeal temperature below the normal standard. Such signs the author of this paper asserts do not occur in cases of membranous croup. In the latter affection the temperature is high, and there are no indications of septicæmia, or typhoidism, whereas in diphtheria there is a *decline* of temperature after forty-eight hours, and proofs of blood-poisoning causing mal-nutrition and vital depression, with membranous deposit on the mucous surface of the conjunctiva, the vagina or rectum;—the infective poison expends its action on the various ganglia of the sympathetic and vaso-motor systems of nerves of the heart, lungs, and stomach.

In the necrological column of the Transactions is a notice of the death of W. O. Hill, M. D., of Woodstock, Shenandoah county, Va., adding another sad example to that of Dr. A.'s case, of Ellentown, N. Y., of the reckless use, even by physicians, of potent anæsthetic drugs. Dr. Hill, it appears, instructed his wife to bring to his bedside an ounce vial of chloral, and to pour the crystals into her hand, telling her when the dose was sufficient. This quantity was dissolved in water and swallowed, and in one hour caused death. The remnant of chloral in the vial showed that the victim had taken 120 grains.

Among the delegates-elect to the approaching session of the American Medical Association in May, are Drs. James L. Cabell, R. S. Payne, Hunter McGuire, Landon B. Edwards, and Frederick Horner.

---

### The New Paris School of Medicine.

In the new School of Medicine now being erected at Paris, it is intended to provide unusual library facilities. Indexes of all the works in the library, representing about 60,000 volumes, are being prepared—one an alphabetical list of authors, and the other an alphabetical list of titles. It is also proposed to keep a register of all legally-recognized practitioners of medicine throughout the world. A preliminary investigation has shown that such a list would comprise about 193,000 names, namely, 65,000 in the United States, 26,000 in France, 32,000 in Germany and Austria, 35,000 in Great Britain and colonies, 10,000 in Italy, 5,000 in Spain, etc.

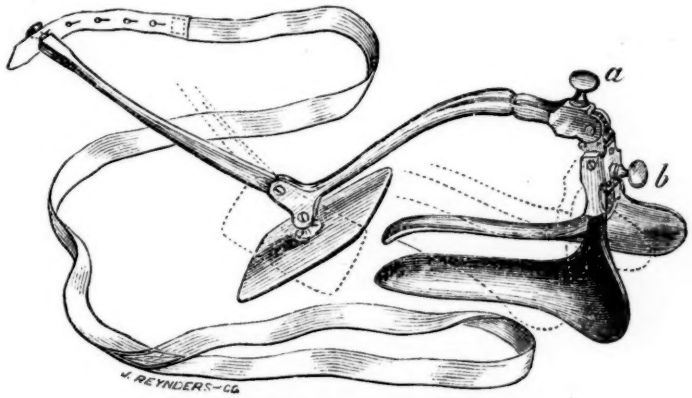
---

### New Instruments.

As a matter of general interest, we insert a description of some new instruments manufactured by John Reynders & Co., of New York.

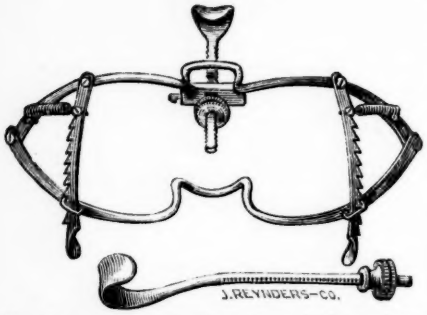
The illustration shows the speculum as now perfected after a long series of trials. The new speculum has an Archimedean screw at (A), by which the blades can be moved forward and backward very conveniently; the mechanism in the place of this in the original Erich speculum falls so far short in answering its purpose as to seriously interfere with the usefulness of the instrument. At (B) there is another screw by which the width of the blades from each other is changed. The square plate at (C) rests upon the sacrum, while the looped band goes around the shoulder of the patient over her clothes; the end of this band has button holes, by which, when the blades are introduced, the speculum can be made firmly self-retaining. This speculum, as now perfected, en-

*Fig.* 1.




DAWSON'S MODIFICATION OF ERICH'S SPECULUM.

*Fig.* 2.




ables the operator to dispense with the assistant or nurse who would have to hold a Sims' speculum; the vaginal walls and uterus cannot be displayed any better by any means known than by its correct application.

Figures 2 and 3 show Dr. Swinburne's Mouth Gag with Retractor, and his Polypus Forceps. These instruments have been devised for the removal of abnormal posterior nasal an pharyngeal growths. The mouth-gag serves, of course, for holding open the mouth, and the retractor attached to it to draw forward the uvula and soft palate. Thus the walls of the posterior nasal and pharyngeal space are distended and brought in the most favorable condition for seizing the growths with the polypus forceps, particularly successfully constructed for its peculiar use. In the hands of many, these instruments have caused a most agreeable surprise by the simplicity and efficiency of the method of use they are intended for.

Fig. 5. A new pocket hypodermic syringe. The top illustration shows the entire instrument put together; the right end is the syringe itself, having a glass barrel and surrounded by a metal casing; to its left end a series of seven compartments are attached for holding hypodermic pellets. The instrument is so arranged that if desired but one of the compartments can be attached. It is then so compact as to be easily carried in the vest pocket.

Fig. 6. A new ear-syringe, by which a continuous injection can be made without removing the instrument from the ear. The piston-rod is surrounded by a coiled spring, by which the same in its natural position is held as though withdrawn to the rear end of the barrel. By grasping the syringe as indicated by the rings attached to it, and pushing in the piston-rod, which latter is hollow, the soft rubber tube, with its sucker, being placed in a basin with water, the syringe will become filled; releasing pressure upon the piston-rod, the coiled spring will push it back and the water pass through an opening in the piston controlled by a valve, to the other side of the latter. When the piston is again pushed in, the water in front of it will be ejected, while at the same time an additional supply will fill it to the back of it from the basin. In this manner the operation of injecting with this syringe can be continued *ad libitum*.

*Fig.* 3.

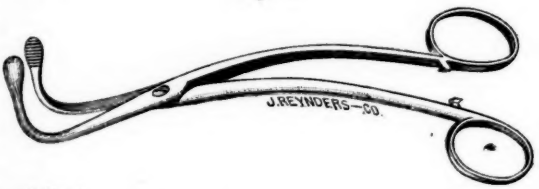



*Fig.* 4.

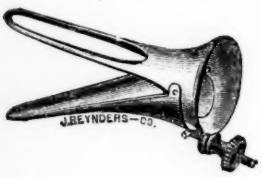



*Fig.* 5.

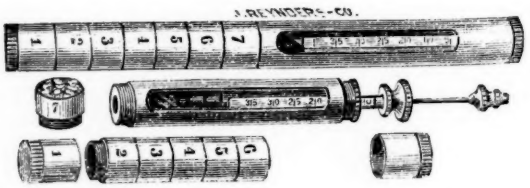



*Fig.* 6.

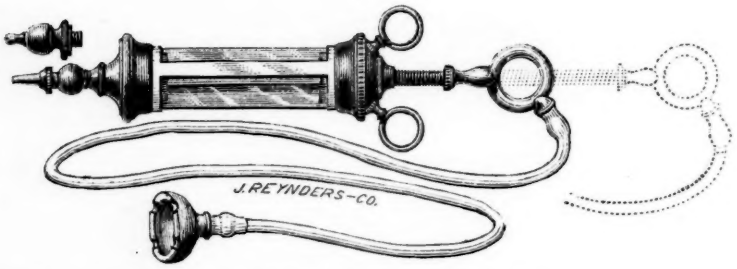



Fig. 4. A new nasal speculum by Callen, of Paris. Its advantages are obvious.

### South Carolina Medical College.

The annual commencement of the Medical College of the State of South Carolina was held March 1 in the presence of a large and cultured audience at the Academy of Music, in Charleston.

The degrees were conferred upon the following graduates by General B. H. Rutledge:

*In Medicine.*—N. Yancy Alford, Simon Beckham, William D. Bratton, R. Andral Bratton, John W. Corbett, H. L. Culbertson, J. D. S. Fairy, James E. Fales, W. N. H. Folk, B. W. Hunter, Archibald McIntyre, Joseph F. McKay, G. Augustus Neuffer, Mazyck P. Ravenel, Howard Reedy, B. Frank Smith, J. Houseal Thompson, Charles E. Wideman.

*In Pharmacy.*—Messrs. F. W. Schwettman, first honor; A. P. Aimar, J. A. Barbot.

The College prize, a handsome silver goblet, was then presented to Dr. M. P. Ravenel by the Hon. Wm. A. Courtenay, Mayor, who, in making the presentation, alluded to the College as being identified with the highest educational interests of the State and city, and who, in closing, said: "A reward of merit from such a source is indeed a prize, and I congratulate you upon having secured it. May it ever be to you an incentive to continuous exertion in your noble profession, and may yon win its highest honors."

The annual address to the graduates was then delivered by ex-Attorney-General LeRoy F. Youmans. The address was a finished and scholarly exposition of the philosophical features of the science of medicine, and abounded in rich classical allusions and stirring rhetorical figures. It was calculated in the highest degree to impress upon the young graduates the duties and responsibilities which would attach to them in the profession they had chosen for their life-work, and was delivered with all that fervid eloquence which characterize the orator, and never fails to engage the rapt attention of his audience.

The valedictory address was then delivered by Dr. R. Andral Bratton, of Rock Hill. The address was well delivered, and included a chaste and fitting tribute to the memory of Dr. J. Marion Sims.

The exercises were closed with the benediction. During the interludes, Metz's Band added to the attractions of the entertainment by discoursing choice musical selections. There are few occasions of the kind in Charleston which are more popular than the commencements of the Medical College, and the pleasure and interest of the large audience was manifested by frequent applause and the generous offering of a wealth of floral tributes to the graduates.

---

### Doctors on the Witness Stand.

The Hon. Will Cumback, in an address at the recent commencement exercises of the Medical College of Indiana, related this bit of personal history:

"The very last case I had in court as a lawyer some years ago was a suit against a doctor for malpractice. The witnesses were nearly all physicians, and they kindly took possession of the case. The plaintiff and defendant were soon lost sight of, and the issue was soon changed to a contest between the allopathic and eclectic systems of medicine and surgery. The court-room became blue from the firing and explosion of the most immense technical terms from those men of science. The jury became so bewildered and dazed that they brought in a verdict of but one cent damages for my client, and failed to make any finding whatever as to the merits of the allopathics and the eclectics, so that the people of my county are still in doubt which is the best—some are for one and some for the other. I became so desperate that I accepted an office under the government, and will never return to the practice of law unless driven to it by sheer necessity."

---

### Dr. Yandell.

Two singular and pathetic incidents are connected with the death of Dr. L. P. Yandell, the late chief editor of the *Louisville Medical News*. He sent word to the printers to reserve space on the editorial page of the issue of March 15, for some special matter that he would send to them. What he intended to publish there no one will ever know, for in the reserved space was announced his sudden and untimely death. The other incident referred to is as follows: On the day of his death he called on a physician, and, the subject of chloral being mentioned, he told his friend of a case that had come under his notice. A patient suffered much from trouble with his heart, and while suffering severely, summoned Dr. Yandell. Dr. Yandell administered a dose of chloral, which he assured his patient would relieve him. It did some good for a few moments, but then the patient fell back in his chair and died. It was, said Dr. Yandell, in speaking of the case, too sudden for the chloral to have produced the death, and the man had simply died of angina pectoris, or paralysis of the heart. In describing this case to his friend, Dr. Yandell imitated the actions of the dying man, falling back in his chair, and throwing his arms about. A few hours later, and under the same circumstances, he himself breathed his last.

---

### Practical Chemistry in the University.

The Trustees of the University of Pennsylvania intend organizing a new department of pure and applied organic chemistry in connection with the Towne Scientific School, as soon as $100,000 is placed in their hands for the purpose. Since the establishment of the Towne School there have been numerous applications on the part of chemical students for instruction in applied organic chemistry, together with practical work in the chemistry of those raw materials or finished products in which the applicants have been particularly interested. The University has been unable to meet the demand, since the laboratory at present is exclusively devoted to inorganic or mineral chemistry. As there is no other school of science of the same scope as the Towne School in the vicinity of Philadelphia, the trustees feel that the community has a right to look to them to supply a need if it be shown to exist. H. H. Houston has started the subscription list with a donation of $10,000.

For the laboratory work, a building will be erected at the southeast corner of the University grounds.

### Religious Mania.

The *Allgemeine Medicinische Central-Zeitung* states that a sect of persons has been discovered to exist at Rostov, in Southern Russia, who kill children by narcotic poisons, in order to keep them from earthly suffering, and secure them at once heavenly joys. The people are the victims of a religious madness.

If these people would control their own animal passions, so that these children would not be brought into the world, then the same ultimate result would be accomplished, and in a less censurable manner.

## OBITUARY NOTICES.

### CASPER MORRIS, M. D.

Casper Morris, M. D., a well-known physician, died March 16, in the 79th year of his age. He was born in this city, and his ancestors resided here since the founding of the colony by Penn. He graduated from the medical department of the University of Pennsylvania in 1826, was resident physician of the Pennsylvania Hospital, and practiced his profession until 1871. He was an eminent lecturer, and contributed liberally to medical works, among his publications being a valuable volume on scarlet fever.

## Items.

—The centennial anniversary of the General Hospital at Vienna is to be celebrated in June next.

—The Miami Medical College held its annual commencement at Cincinnati on March 6, graduating a class of twenty-seven.

—The Detroit Medical College held its annual commencement on February 29, graduating a class of twenty-five.

—The Michigan College of Medicine, of Detroit, held its annual commencement on March 3, graduating a class of twenty-seven.

—In the *Am. Jour. Med. Sci.*, January, 1884, Dr. G. C. E. Weber reports a case of elephantiasis arabum cured by ligature of the femoral artery.

—Sponging the surface of the body with a solution of quinine in alcohol—one drachm to the pint—is now recommended for excessive sweating. It is a remedy that has long yielded us good results.

—It is reported that a new medical college has been organized in Cincinnati, under the title of the "Medical University of Ohio." This will make the fourteenth medical college in the State of Ohio.

—Amother death from ether is reported in the *Brit. Med. Jour.*, the victim being a laboring man, fifty years of age, who was being operated upon at the Gloucester Infirmary for cancer of the gums and throat.

—The Medical Department of the University of Buffalo held its annual commencement on February 26. Degrees were conferred upon sixty-two graduates. The address to the graduating class was delivered by Dr. Roswell Park.

—The Medical College of South Carolina held its annual commencement on March 1, graduating twenty students in medicine, and three in pharmacy. The College has established a graded course of three years.

—The treatment of syphilis without mercury is well enough in theory, but does not work in practice. Such is the conclusion arrived at by Prof. Newman, of Vienna, as the result of a series of cases treated in both ways.

—At a meeting of the Faculty of the Medical Department of the University of Georgetown, D. C., held March 13, a committee of three was appointed to report a plan for the procurement of a suitable building for college purposes.

—A bill entitled an act to appropriate a sum of money to enable the Baltimore Medical College to equip and maintain a hospital, to be known as the "Maryland Infirmary and Lying-in Hospital for Indigent Women," has been introduced into the Senate of Maryland.

—The following placard hangs in a Tennessee store-window:

Peppermint Ile for
Hed ake
Bellie "
Tooth "

—During the academic year 1882–83 six hundred and seventy-two M. D. degrees were conferred in France. Not far from three-quarters of the whole number, or four hundred and sixty-five, were conferred by the Paris faculty. Montpellier comes next, with sixty-nine; then follow Bordeaux with forty-six, Lyons with forty-three, Nancy with twenty-one, and Lille with twenty.

—The soap weed, which grows abundantly in Colorado and New Mexico, is coming to the front as a superior material for the manufacture of paper. Experiments, it is reported, have demonstrated that from the fibre of the soap weed a paper equal to the finest linen may be produced; and as the weed grows in immense quantities indigenously in the localities mentioned, the supply of the material is inexhaustible.

—A correspondent at Stockport tells us: The latest medical bull perpetrated in this direction occurred last week, when a doctor was called in to see three sick children, for whom he prescribed. A few hours after, the mother came to him in great trouble, telling him that *two* of the children had died. "But," said Dr. ——, "I gave you medicine for *three*. Where is the other?"

—The Surgeon-General of the Marine Hospital Service is informed that small-pox is epidemic in Louisville, and there were seven deaths from the disease in the Marine Hospital in that city during the last week of January.

—The Secretary of the Treasury has approved a recommendation of Surgeon-General Hamilton that an immediate inspection be made of the cities bordering on the Gulf of Mexico and the Caribbean Sea having commerce with the United States, in order that their actual sanitary condition may be known in advance of the yellow fever season. A medical officer of the Marine Hospital Service and a revenue marine officer will be detailed for the inspection.